Phillip J. Windley, Ph.D.

801.362.5611   phil@windley.org

Phillip J. Windley, Ph. D. is an experienced technology leader with broad knowledge and experience in both CIO and CTO roles across the public and private sector. Currently serving as a Senior Software Development Manager for AWS Identity. Dr. Windley is a nationally recognized expert in privacy, digital identity, self-sovereign identity, and blockchains. He has published books, written articles, and regularly consults with businesses on these and other topics.

Work Experience

2022 to present   *Senior Software Development Manager*
AWS Identity, Automated Reasoning Group

- Manage engineering teams building products with provable security properties for AWS customers

2005 to present   *Founder and Executive Producer*
Internet Identity Workshop

- IIW is semi-annual workshop on user-centric and self-sovereign digital identity where internet identity protocols such as OpenID, OAuth, OpenID Connect, UMA, and FIDO were conceived and pushed forward
- Facilitate discussions on privacy, cookies, tracking, ad networks, customer choice, self-sovereign identity, verifiable credentials, blockchains, and personal autonomy.
- Work with identity industry leaders from around the world to successfully product and host digital identity event
- IIW has been held 31 times. The most recent event had 407 participants from around the world

2014 to 2022 *Enterprise Architect*
Office of CIO, Brigham Young University

- Advise CIO on strategic direction and initiatives
- Developing decentralized, distributed-ledger-based architecture for a global education initiative for 15 million people in 188 countries.
- Leading effort across campus with disparate IT groups to consolidate 950 various Web services into single, coherent University API
- Leading effort within Office of IT to transform traditional development and operations culture to a DevOps culture for increased organizational agility
- Leading innovative, multi-disciplinary Domain of One's Own initiative to provide tools and curricular approaches for teaching 31,000 students to understand construct their personal digital identity across the curriculum
- Mentor and lead Managing Directors of Development, Operations, and Networking in organizational analysis and transformation

- Manage trade-offs between IT functionality and security across campus IT organizations
- Architect and review information governance models, processes, and policies.
- Responsible for reviewing and approving IT acquisitions, managing diverse requirements, and negotiating compromises

2016 to 2020   *Founder and Executive Chair*
Sovrin Foundation

- Launched and managed global non-profit dedicated to building an identity metasystem
- Recognized leader in self-sovereign identity
- Led efforts to conceptualize, build, promote, support, and govern privacy-preserving technologies with support for minimal disclosure, personal autonomy, and censorship resistance
- Launched a global, public, permissioned blockchain as a metasystem for self-sovereign identity
- Guided GDPR and other privacy regulation compliance
- Developed and led governance efforts with multiple parties from diverse companies, locations, and backgrounds.
- Led nine-person board of trustees
- Raised $5 million to fund development and adoption efforts
- Successfully spun off three open-source projects: Hyperledger Indy, Aries, and Ursa
- Hired executive management
- Managed partnerships with companies from around the globe.
- Led legal strategy and managed attorney relationships from multiple multinational legal firms

2008 to present   *Adjunct Professor*
Computer Science Department, Brigham Young University

- Teach senior-level course on distributed computer systems on-campus and online.

2007 to 2014   *Founder and Chief Technology Officer*,
Kynetx, Inc.

- Developed open-source connected-car platform exploring Internet of Things architectures that support privacy and personal autonomy
- Created Internet-of-Things architecture that supports privacy and personal autonomy.
- Led successful Kickstart campaign for connected-car platform
- Developed first-of-its-kind Web programming platform for creating privacy-preserving client-side Web applications
- Led development of mobile apps for Android and iOS
- Responsible for all product development and innovation
- Developed products for Visa International, Dun and Bradstreet, Acxiom Corp.
- Built cross-functional development team focusing on development, database, operations, and security of all products
- Raised $2,300,000 in strategic funding

- Founded and planned business

2004 to 2008 *Associate Professor*
Computer Science Dept., Brigham Young University

- Establish research program in reputation, digital identity, privacy, Web services, and Web architectures and direct the research work of graduate and undergraduate students
- Innovate in the use of Web-based technologies, including wikis, blogs, and podcasting, for delivering course content
- Teach courses in reputation, digital identity, Internet programming, distributed systems, middleware, programming language theory, and networking

2003 to 2012 *Professional Writer*

- Contributing Author, Between the Lines. Focus on identity, Web services, and software infrastructure
- Contributing Editor, InfoWorld Magazine. Concentrating on Web services, digital identity, and business intelligence
- Monthly Columnist, Connect Magazine. Focus is on the impact of technology on business and society

2001 to 2002 *Chief Information Officer*
Office of the Governor, State of Utah

- Responsible for vision, strategy, direction, guidelines, policies, planning, coordination and oversight for information technology for all executive branch agencies of Utah (22,000 employees).
- Reported to the Governor, member of the Governor's Senior Staff and Cabinet
- Worked with departmental and IT executives across state, national, and local government
- Chaired the state's Information and Technology Policy and Strategy Committee, which sets policy and strategy for IT statewide
- Developed and implemented eGovernment plan and strategy that resulted in Utah winning numerous awards for eGovernment excellence
- Specific accomplishments include:
  - Successfully deployed dozens of eGovernment applications. The state's eGovernment portal, Utah.gov won and continues to win national awards for excellence
  - Reorganized critical IT functions across more than 20 departments and agencies to drive Governor's vision of eGovernment
  - Planned and initiated consolidation of key IT programs for increased efficiency and security
  - Established and architected IT Governance programs for all state agencies that are still in use
  - Implemented common directory services and email for all 22,000 employees under Utah.gov domain
  - Oversaw and approved budget of $120 million for IT (900 IT employees).

- o Created and established a coherent set of policies for digital identity and computer security on state computers systems and networks.
- o Established an enterprise storage solution.
- o Created and implemented rebranding strategy for the state online services including the move to a new URL (utah.gov), new logo, common look and feel across hundreds of separate web sites, and an advertising campaign.
- o Created and drove a customer centric vision for IT services in the State including the establishment of a multi-tiered support environment.

1999 to 2001   *Vice President, Product Development and Operations*
                      Excite@Home, Redwood City, CA

- Senior corporate officer in Excite@Home's Utah office, responsible for all employees in Utah (110 employees).
- Managed product management, engineering, customer service, network operations, and software quality assurance groups across division (200+ employees).
- Responsible for product development in the Excite Business Applications (EBA) group. EBA provided shared commerce, Internet credit card payment gateway, and managed hosting services for over 50,000 customers.
- Focus on on-time, on-budget delivery and operation of innovative, complex Internet applications.
- Specific accomplishments include:
  - o Increased division revenue from $4 million in 1999 to $26 million in 2000 with EBIT of $2.7 million.
  - o Responsible for product P&L and budgets.
  - o Development and operation of a shared hosting product for AT&T which received a PC Magazine Editor's Choice Award.
  - o Development and operation of Freetailer e-commerce product on the Excite network. This product ultimately served over 25,000 merchants.
  - o Introduction of activity-based costing to product development in EBA.
  - o Managed planning and build-out for the new Orem facility, including a 3000 square foot, Class A data center.
  - o Managed operation of large-scale Internet infrastructure including applications that supported tens of thousands of customers, large-scale Internet portals receiving millions of page views per day, and Internet credit card payment gateways.
  - o Established operational metrics for driving reliability and availability of corporate infrastructure.
  - o Instituted capacity planning discipline.

1998 to 1999   *Founder and Chief Technology Officer*
                      iMALL, Inc., Santa Monica, CA

- Responsible for all technical strategies, activities, plans, and policies for iMALL, Inc., an early Internet e-commerce company that was acquired by Excite@Home in 1999 for $450 million.
- Designed, planned, and built a multi-tier, distributed Internet application platform for e-commerce.

- Responsible for all product planning as iMALL developed a market, customers, and strategies.
- Developed and institutionalized effective software engineering practices.
- Specific accomplishments include:
  - Opened Provo UT office and built a technical team that ultimately numbered over 100 people to carry out iMALL's product strategy.
  - Conceived and developed iMALL's e-commerce products, which included one of the earliest hosted e-commerce applications, a product level search engine (`stuff.com`), and the `imall.com` shopping portal.
  - Built and deployed first online credit card payment gateway for First Data Corp.
  - Key member of the senior executive team that sold iMALL, Inc. to Excite@Home for over $450 million.

1993 to 1999　　　*Associate Professor (tenured)*
　　　　　　　　　　Brigham Young University, Provo, UT

- Director and Founder, Laboratory for Applied Logic.
- Conducted research in large scale, enterprise networked applications and formal methods in hardware design. Conducted government and corporate sponsored research in these areas. Received nearly $1 million in research sponsorship.
- Taught classes in programming language concepts and theory, hardware design, and formal methods.
- Over 38 peer reviewed publications.

1994 to 1996　　　*Founder, Partner*
　　　　　　　　　　Electronic Marketing Services, Provo, UT

- Founded the `imall.com` shopping portal, one of the earliest online shopping sites on the Internet.
- Pioneered key concepts in online commerce including shopping carts, online software for site creation, and electronic transactions.
- Built business model for selling services to merchants who wanted to be online.

1990 to 1993　　　*Assistant Professor*
　　　　　　　　　　University of Idaho, Moscow, ID

- Director and Founder, Laboratory for Applied Logic
- Conducted research in microprocessor verification and formal methods.
- Taught classes in microprocessor design and programming language concepts.

1986 to 1995　　　*LCDR*
　　　　　　　　　　US Naval Reserve

- Active, drilling reservist.
- 1445 (Engineering Duty Officer) designator
- Service in both engineering duty and shipboard units.
- Executive Officer, NR USS McKee Det 320; 7 officers, 100 enlisted men

1982 to 1986　　　*Member, Technical Staff, Reactor Materials Division*
　　　　　　　　　　LT, US Naval Reserve

Naval Reactors, Department of Energy, Washington D.C
Naval Sea Systems Command, Code 08

- Primary duty as a nuclear metallurgist.
- Oversaw material irradiation testing in Advanced Test Reactor.
- Oversaw evaluation of irradiation testing at the Expended Core Facility.
- Conducted reviews of engineering plans for robotic test equipment, HVAC facilities, and other testing gear.
- Responsible for $60 million/year operating and capital budget for conducting irradiation tests.
- Navy Secret/SBI clearance and DOE Q clearance.

Books

The Live Web, published by Cengage Technology. 2011

Digital Identity, published by O'Reilly Media. 2005

Other Business Activities and Experience

Chairman, Personal Privacy Oversight Commission, State of Utah. 2021-present

Chairman, Sovrin Foundation. Sovrin Foundation is a non-profit governance body for a global, decentralized identity network. 2016-2020

Founder and co-organizer, *Internet Identity Workshop (IIW)*, semi-annual workshop on user-centric digital identity where internet identity protocols such as OpenID, OAuth, and OpenID Connect were conceived and pushed forward. 2005-present

Frequent author and speaker at conferences on Identity, Web Services, and IT Governance.

Publisher of the popular Technometria blog at www.windley.com

Member, Utah Transparency Advisory Board, State of Utah, 2016-2017

Member, Lt. Governor's Voting Equipment Selection Committee, State of Utah, 2016-2017

Executive Producer, IT Conversations,
   Internet's first technology podcast with tens of thousands of listeners. 2005-2012

Member, Board of Directors, Utah Open Source Foundation, 2009-2011

Member, Board of Directors, Open Source High School of Utah, 2007

Member, Board of Directors, Direct Pointe, 2005—2011

Member, Board of Directors, Sento Corp. (SNTO), 2003—2007

Advisory Board Member, ContentWatch, 2005—2009

Advisory Board Member, PingID Network, 2002—2009

Advisory Board Member, Canyon Park Technology Center, 2002—2006

Board Member, Utah Information Technology Association, 2001—2003

Member, Steering Committee, Utah Education Network, 2001-2002

Member, Steering Committee, Utah Health Information Network, 2001-2002

Member, College Advisory Committee, College of Physical and Mathematical Sciences, Brigham Young University, 2001—2003

Member, College Advisory Committee, School of Computer Science and Engineering, Utah Valley State College, 2002—2003

Education

1990 *PhD*   **University of California, Davis, Computer Science**
Davis, CA. Dissertation: The Formal Verification of Generic Interpreters

1988 *MS*   **University of California, Davis, Computer Science**
Davis, CA

1982 *BS*   **University of Idaho, Metallurgical Engineering**
Moscow, ID

Other Training

2000 *Certificate*   **University of Michigan, Management Development Program**
Ann Arbor, MI

1983 *Certificate*   **Westinghouse Bettis Nuclear Reactor Engineering School**
Pittsburgh, PA