

CHARLES H. CLANTON

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Career History

At Harvard College, I conducted research in psychology and the neurophysiology of thinking. In my PhD program at Stanford, I studied how computers can enhance problem-solving. I was a pioneer in applying psychological research methodologies to usability design from entertainment to enterprise products. Application software was (is) still too hard to use so I decided to learn about game design. People have to use business software but pay to play games. I designed game-like consumer electronics interfaces to drive the design of a networked programming language for casual user applications (Java). Then I joined an Electronic Arts (EA) founder at a game startup as Director of Design. Within a year I was working as a lead game designer. I was hired by EA in the UK to bring a USA perspective to the recently purchased Bullfrog Games team. I did playtesting and design consulting on many of their games, worked on the design of 4 platinum games, and became the first Design Fellow at EA. Back in the USA, I was a principle designer of an internet virtual world that later won an Emmy award, created best practices for the most critically acclaimed Sony Eyetoy games by EA, and developed best design practices for advertising-supported casual gaming in public venues on innovative interactive video floor and wall platforms. I am intent on applying what I learned from entertainment design to serious software, creating both an administrative and a consumer UI for one of the top human capital management systems, designing a well-reviewed educational game for kids, conducting extensive research on brand communication techniques that yielded unprecedented results in a large Arbitron study, and designing the UI for an innovative database virtualization product. I continue to validate my work with user testing.

Skills

User Experience Research and Design

Expert Software: greatly simplified storage management for the first enterprise all-flash array for Pure Software; innovative [database virtualization](#) product for startup Delphix (GUI); administrative dashboard for Saba's **performance and learning management systems** deployed at more than half the Fortune 500 resolving corporate customer complaints about usability (new GUI); Vestman *investment management* for a professional portfolio managers (GUI); rule-based **time accounting** and **access control** for [Adasoft](#) deployed in the largest Swiss companies (GUI and knowledge-based rule engine); cancer clinic **medical information system** for Bell Atlantic Healthcare Systems deployed in teaching hospitals nationwide (GUI and user-centric architecture)

Casual software: consumer website for [Saba](#)'s human capital management system with 9 million users (GUI); animated internet cards for ePlanet (design); secure email **web client** for [Tumbleweed](#) used by USPS, FedEx, and others (GUI); third party support website for developers of interactive advertising for Reactrix's network of 200 interactive video floor displays (website design, best design practices)

Mass market entertainment: three platinum **PC and console games** for Electronic Arts including the first *Harry Potter* (game design); the **massively-multiplayer online virtual world** [There](#) widely praised in *Time Magazine* and the *Wall Street Journal* (game mechanics, GUI, inventory management, avatar communication, facial expressions, cinematic camera, autonomic behaviors); *There* was selected for *MTV's Virtual Worlds* including *Laguna Beach* that won an **Emmy in 2008** for "outstanding achievement in advanced media technology for creation of nontraditional programs or platforms"

New Platforms: consumer applications for the first **touch screen hand-held PDA**, the Star7, for [Sun Microsystems](#) to create a new network programming language called **Java**; EA's highly praised *Harry Potter* minigames for Sony's highly successful [Eyetoy](#) launch (best design practices); best design practices for **interactive video** floor displays for advertisement deployed in hundreds of malls nationwide for [Reactrix](#); **3D gesture language** for interactive wall display ("Wii without the controller") to be deployed by Reactrix in Hilton Hotels (described in this [Stanford seminar](#))

User Experience Research: focus groups and user testing of casual mass-market users for devices (eg TV set remote control) and software (eg courseware, PDAs); focus groups and user testing of experts (eg physicians, investment advisors, curriculum planners); published studies on gesture navigation now used in all touch screen applications; research on differences in computer and video game preferences between North America and Europe; playtesting of many types of games released by EA's UK Studio (eg sports, strategy, multiplayer combat) including 3 *Harry Potter* titles on 7 platforms; playtesting to develop best design practices for Eyetoy games; virtual world playtesting for avatar-centric communication and for a common UI for all activities including running, driving, flying, and shooting; lab and field studies of over 1500 interactions to develop a gesture language for interactive video wall control; hundreds of field and lab studies for best design practices for brand communication and fun for an interactive video floor

Creative Producer/Team Lead

Hired, scheduled and managed team for consumer website for Saba's human capital management system; wrote functional design documents and matrix managed project teams at *There*; managed multiple application teams at *FirstPerson*

Brand and Message Communication in Interactive Experiences

Brand and message communication in interactive floor and wall displays deployed nationwide with a million daily users, design practices yielding 3-4x better 72 hour brand recall and 12x better message recall than any other form of advertising in a nationwide Arbitron study.

Education

Classes Taught: Game design at [Cogswell Polytechnical College](#) (2004-6) and [Stanford University](#) (1993-2003). Corporate courses in Java, object-oriented design, use cases, scenarios, UML, patterns etc. for Dan Keller Associates.

Online: experimental web-based computer-aided instruction for [Hewlett-Packard](#) that saw heavy usage, reducing training costs, and leading to the formation of an internal HP group to create many web-based courses for employees.

Edutainment: a well-reviewed internet downloadable educational dinosaur game [Save the Dinosaurs](#) for [Kaibridge](#)

Tutorials and Workshops: [SIGCHI](#) Workshop on Game Design (1996) [SIGGRAPH](#) and SIGCHI tutorials Film Craft in User Interface Design (1992-4)

Experience

- Aratar, Inc.** *Principle Designer* 1990-2008
Playtesting and design consulting on every [Harry Potter game](#) released prior to 2006 (3 titles on 7 platforms for EA).
Playtesting and design consulting on [Black and White 2](#) for [Lionhead](#) and [Batman Begins](#) and [Crysis](#) for [EA UK Studio](#).
- Pure** *Director of User Experience Design* 2010-2012
Design of a storage management software for the first enterprise all-flash storage array, starting with user testing of initial concept designs and continuing with iterative design during alpha and beta testing.
- Delphix** *Director of User Experience Design* 2008-2009
Design of an innovative enterprise database virtualization product for expert users (Database Administrators). Conducted frequent user tests during development to validate design and usability.
- Reactrix** *Director of User Experience Design* 2004-2008
Best design practices for fun and brand communication with STEPScape, an innovative interactive video [video floor](#) and a 3D gesture language and best design practices on the WAVEScape [interactive video wall](#)
- Saba** *Director of User Experience* 2004
Hired team, established usability metrics and iteratively designed and tested a consumer UI for a human capital management product with 9 million users. Pleased key customers by satisfying ease of use metrics.
- There, Inc.** *Director of User Experience, Principal Designer* 2000-2004
Co-designed avatar-centric communication. Produced and designed inventory management, cinematic camera, etc.
- Electronic Arts UK Studio/Bullfrog Productions** *Game Design Fellow, LeadStudio Designer* 1998-2000
Evaluated games across the entire studio with playtesting and focus groups. Worked on design of UI, game mechanics, game play and challenge ramp for various platinum titles including *Populous*, *the Beginning*, *Sim Theme Park*. First designer on *Harry Potter* game. First *Design Fellow* at Electronic Arts.
- Any River Entertainment** *Director of Design* 1995-1996
Established processes for internal and external development. Provided design oversight for designers of internal and external adventure and action-adventure titles.
- Sun Microsystems/FirstPerson/Green** *VP of Product Design* 1991-1992
Created and lead a product development group to drive the design of the Java language for creating highly animated networked consumer software applications. Validated touchscreen gestures used in such devices since.
- Bell Atlantic Healthcare Systems** *User Interface Architect* 1990-1991
Designed, prototyped, and managed development of the front-end application for visualizing clinical data to support medical reasoning. Designed and prototyped a custom language connecting database and GUI.

Innovations

Co-invented avatar-centric communication (5 patents issued), user interface in Java (2 patents issued), "thumb mouse" remote control for TV remote, navigation technique (1 patent issued), techniques for display compression (2 patents issued), universal first person navigation in virtual world, 3d gesture recognition (2 patents pending)

Education

Harvard College	<i>BA, cum laude, Experimental Cognitive Psychology</i>
UCSF School of Medicine	<i>MD, Medical Scientist pathway</i>
UCLA Extension	<i>Film School, Director's Program</i>
Stanford University	<i>Interdisciplinary PhD Program in Psychology & Computer Science</i>

Academic Research

Stanford University

Directed student projects on applying game and film craft to software applications, e.g. intelligent cameras for maximal affective response in games, interactive sound design techniques

Human factors with David Thompson, Prof., Mechanical Engineering. Decision analysis and problem solving with David Eddy, Prof., Engineering and Economic Systems. Psychology of reasoning with Amos Tversky, Prof., Psychology. Computational models with Bob Floyd, Prof., Computer Science. Artificial intelligence for inferential reasoning with Ted Shortliffe, Asst. Prof., Computer Science.

Harvard Center for Cognitive Studies

Perceptual information processing with Jerome Bruner, Prof., Psychology.

Selected Web Portfolio

Links to various projects and products

STEPScape interactive video floor	WAVEScape interactive video wall
Harry Potter and the Philosopher's Stone	World Cup Quidditch
Save the Dinos (Review , Website)	Star7 PDA
There massively-multiplayer world [also]	Virtual MTV
	Virtual Laguna Beach