SERGIO GOLDENBERG

■ TECHNOLOGY   ■ PRODUCT & DESIGN   ■ MEDIA & CONTENT

GOLDENBERG**MEDIA**

Updated on July 2020

goldenbergmedia.com   🌐
goldenberg.sergio@gmail.com   ✉
linkedin.com/in/sergiogoldenberg   in
1.404.626.3125   📱

Who am I

I believe and live in the intersection of **technology** and **digital product development**. My whole career has focused on building bridges and breaking walls between commonly separated disciplines. My 20+ years of experience have given me a holistic view from creation, delivery, consumption, and interaction of digital products allowing me to define long term strategic visions and business opportunities.

I bring a unique combination of strong hands-on experience in the **technology**, **development**, **product**, **design**, and **research** of **multiplatform digital media products**, with an emphasis on advanced video, and emergent content creation and delivery solutions.

PRODUCT & DESIGN

PRODUCT MANAGEMENT

USER EXPERIENCE DESIGN

PRODUCT LEADERSHIP

INFORMATION ARCHITECTURE

UI/UX LEADERSHIP   TECH LEADERSHIP

VISUAL PRODUCT DESIGN   DIGITAL STRATEGY   AGILE DEVELOPMENT

USER RESEARCH

MENTORSHIP & TEAM BUILDING

PROTOTYPING   BUSINESS DEVELOPMENT

CONTENT STRATEGY

TECHNOLOGY

SYSTEMS ARCHITECTURE

DATA MODELING

APP DEVELOPMENT

FRONT/BACK END DEVELOPMENT

BROADCAST INFRASTRUCTURE

ENCODING & STREAMING

VIDEO EDITING   LIVE & POST VIDEO PRODUCTION

EDITORIAL CURATION   EDITORIAL LEADERSHIP

MEDIA & CONTENT

GOLDENBERGMEDIA

My Story

I am a digital media professional and researcher with a unique combination of academic and industry experience. For over two decades I have led **multi-platform digital products**, from content creation and user-experience design to technical development and implementation, with an emphasis on advanced video and news delivery solutions.

My career has always been influenced by my research on digital media. My mix of deep hand-on understanding and exploration of current and future technologies, the iteration over innovative design patterns, and the creation of novel digital strategies have allowed me to have the right perspective on my roles across organizations.

In 2019, I led the effort to converge all video-related product and technology efforts for CNN Digital to one team with the goal of rethinking and redefining all our video platforms. Before, every team - web, mobile apps, TV apps, video player, and off-platform - was responsible for understanding, managing, and operating the complex world of video. By centralizing on one group for all-things-video, we could offer focus, excellence, and a strategic vision for the company.

My blend of product-design-technology-editorial hands-on experience allowed me to build a team with a clear vision for the future. Understanding the technological challenges was as critical as to understand how small understanding we had of our user video experience. We needed to tackle both sides.

In a year we grew from 2 to almost 30 software engineers, product managers, designers, and project managers. We called ourselves **Video Experience & Platforms.** Having a holistic responsibility for video on CNN Digital gave us the opportunity to think big, and create new experiences specifically for news.

Video Infrastructure

One of my major responsibilities - after building the team - was to re-platform the video infrastructure. Because of the previously disaggregated approach, we ended up with a dozen different video player technologies, 10-year old encoding and orchestration workflows, and running on out-of-warranty encoding equipment.

A few of our successful technology efforts:

- Migrated live video encoding and packaging to iStreamPlanet
- Architected the Live-to-VOD workflows for all TV-originated content
- Created a modular cloud abstraction layer between our different CMSs and the encoding infrastructure

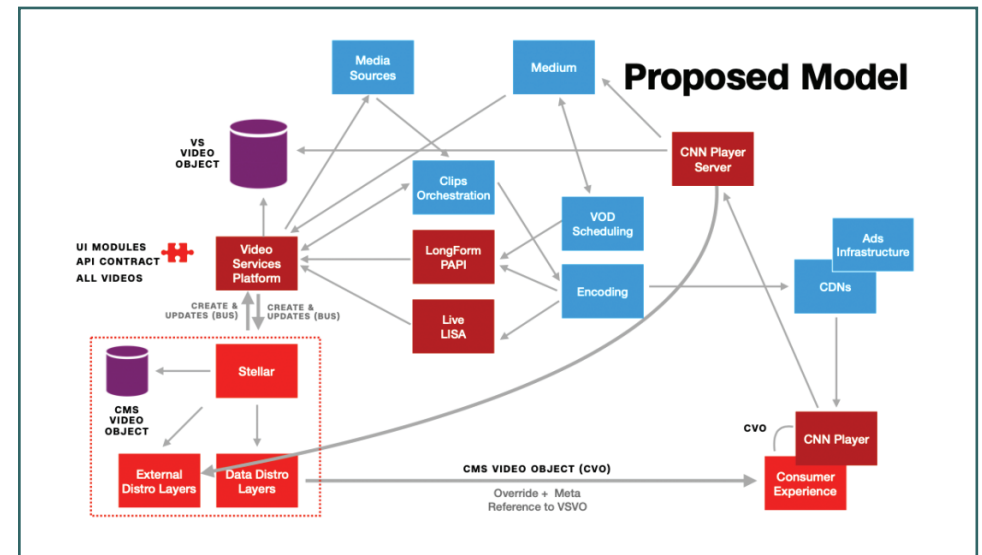Before focusing on the overall CNN Video architecture, I was responsible for CNNgo's Architecture.
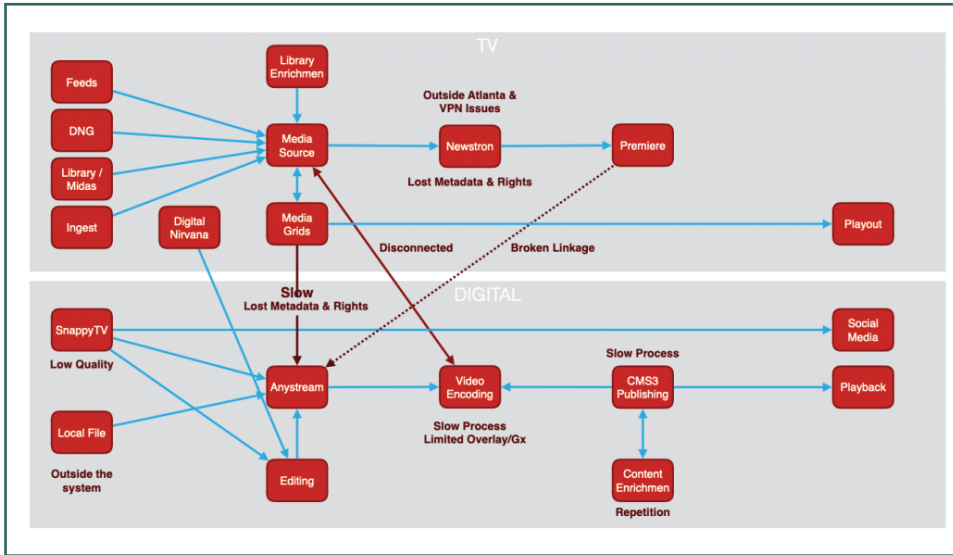
Analysis of video clips' outdated encoding infrastructure
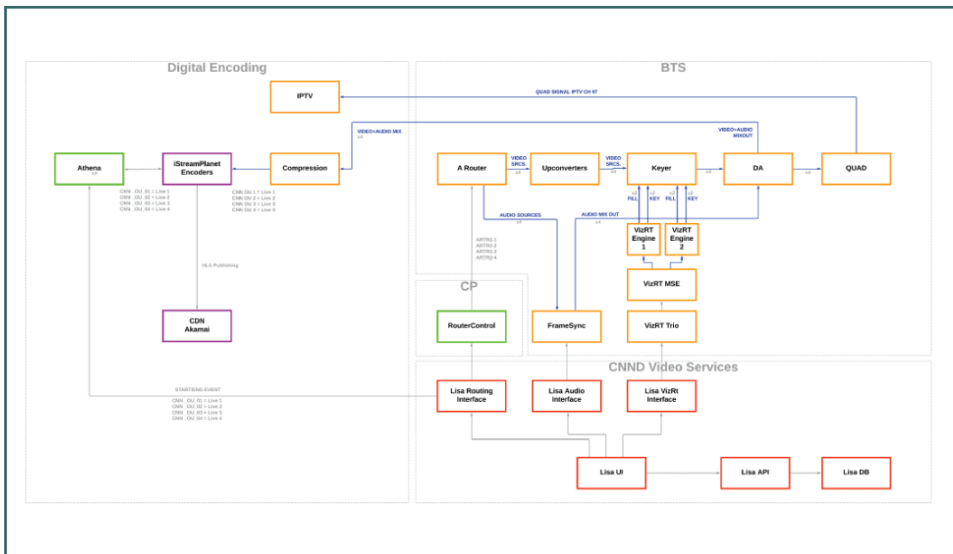
Video Architecture for Alternative Live Streams
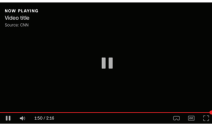

iStreamPlanet migration architecture model

Video Experience

A good platform could only be valued by our users if the **playback experience is high-quality.** One of the major efforts from a Product and Design standpoint was to create a unified and coherent experience across video platforms. We had too many visual language approaches and an inconsistent feature and capability parity across the web, mobile, and TV apps.
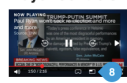
We defined another abstraction layer, where our **CNN Video Player** would look and behave consistently across devices. The partner teams across the organization would not need to know which playback engine, digital advertising approach, nor monitoring techniques we would use under the hood. This way our product and technology partners responsible for CNN.com and CNN Apps would be able to focus on how to expand the video capabilities instead of debugging why SSAI does not work.

Our user-centric approach had one important goal: **How to create the best news video experience in the industry.** This meant how to rethink live-breaking-news-realtime video coverage, video segmentation, video recommendation, and so forth.
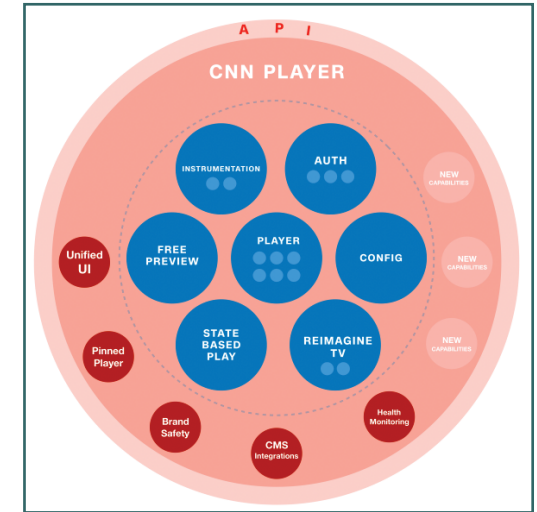

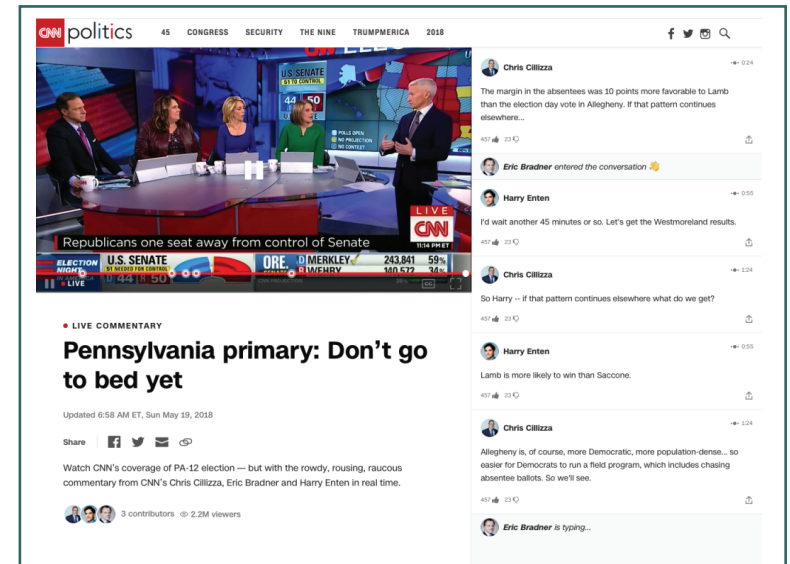CNN Player abstracted architecture


Video Player Controls explorations

Cronkite, an example of a real-time synced experience between the video stream and staff curated commentary

CNN Digital

During my tenure with the **CNNgo** team, I led Product Development for the different TV apps in addition to led their technical implementation. On 2014, we launched CNNx a next-generation TV Everywhere premium product that gave viewers unprecedented control over their TV news experience.

Through CNNx users could access 24 hours of program rundowns and select on-demand full episodes and segments together with a wealth of complementary digital content. The product was then renamed CNNgo and was available on its launch on go.cnn.com and the CNN iPad app.


CNNgo on the Web
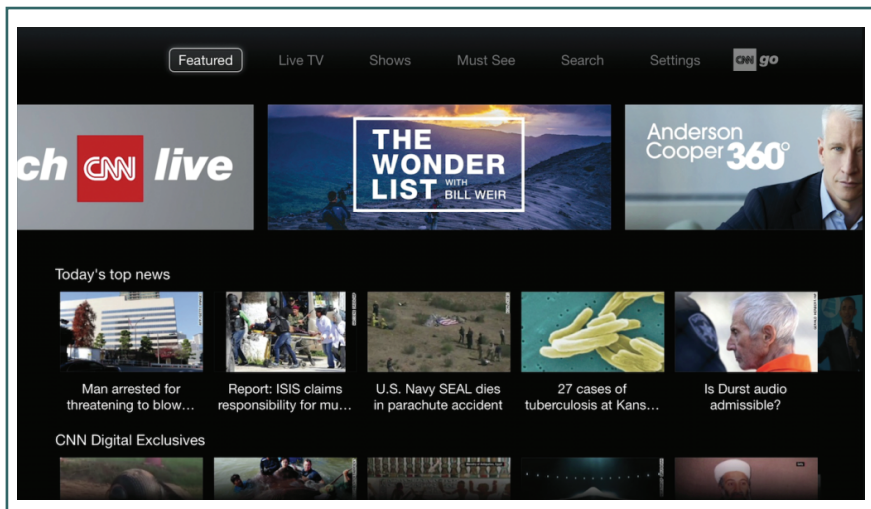
Redesign of CNNgo

OTT Initial Design

On 2015, we expanded the service to our first TV/OTT devices. The first platform to get CNNgo was AppleTV. The experience on TV/OTT devices was much simpler but we expanded the VOD offering to CNN.com clips and the whole vault of full-episodes from CNN, CNN International, and HLN content.
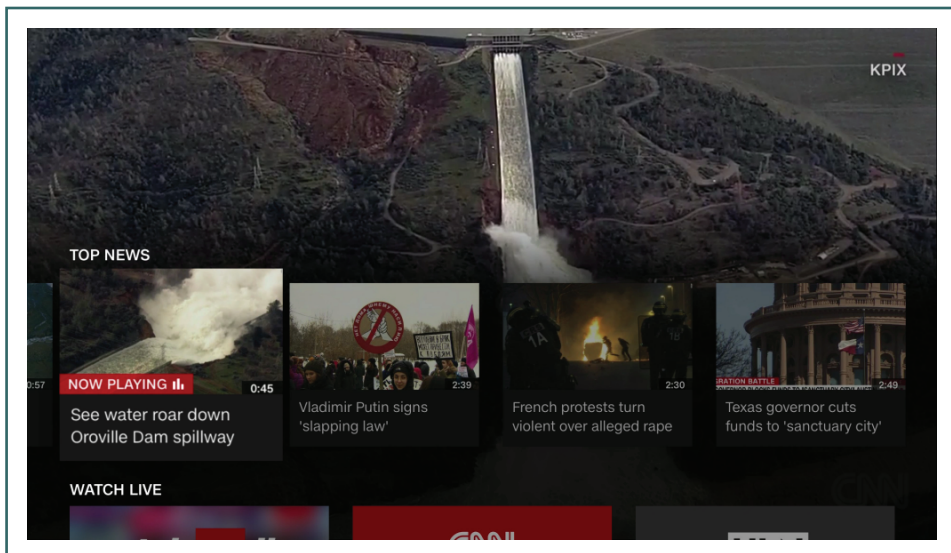
I led in the ideation, prototyping, and technical development of a version of CNNgo for DirecTV, which was not ever launched due to hardware limitations. It included a lower-third approach to navigate a 24-hour window of shows, segments, and extended related content.

We then expanded to Amazon's FireTV, Roku, Samsung TV, and Android TV; all experiences were based on the original AppleTV design. With the launch of the fourth-generation of AppleTV with tvOS, we redesigned the experience with a video-first approach.
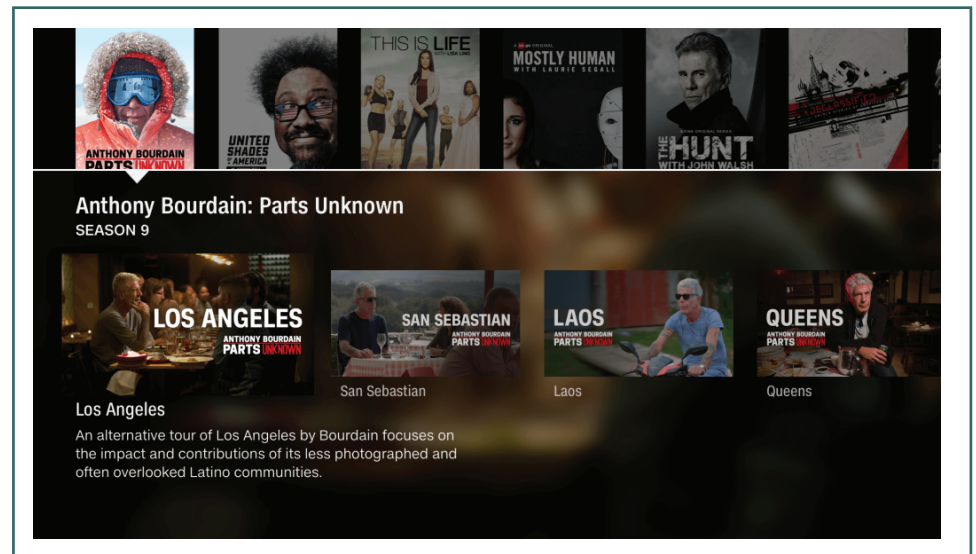
CNN Digital
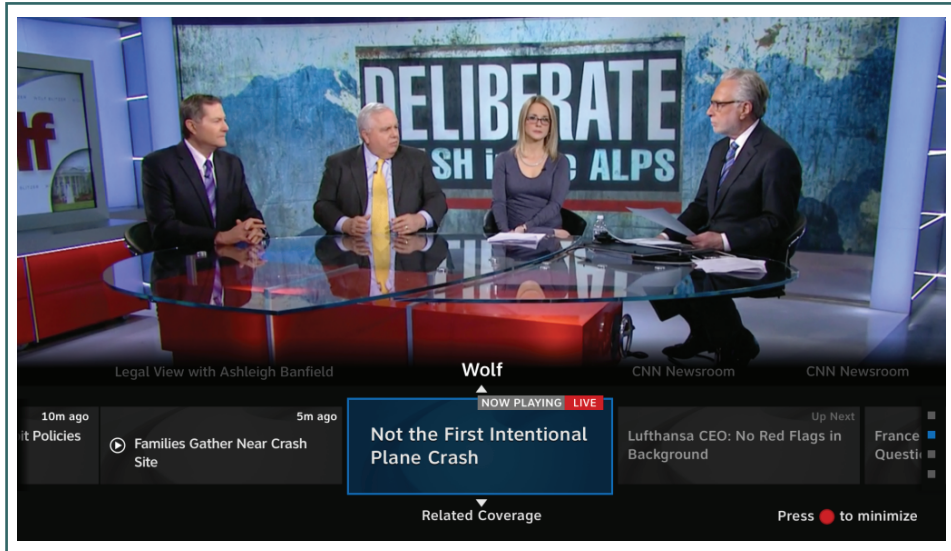
DirecTV Prototype

VOD browsing experience

Redesigned video-first OTT experience
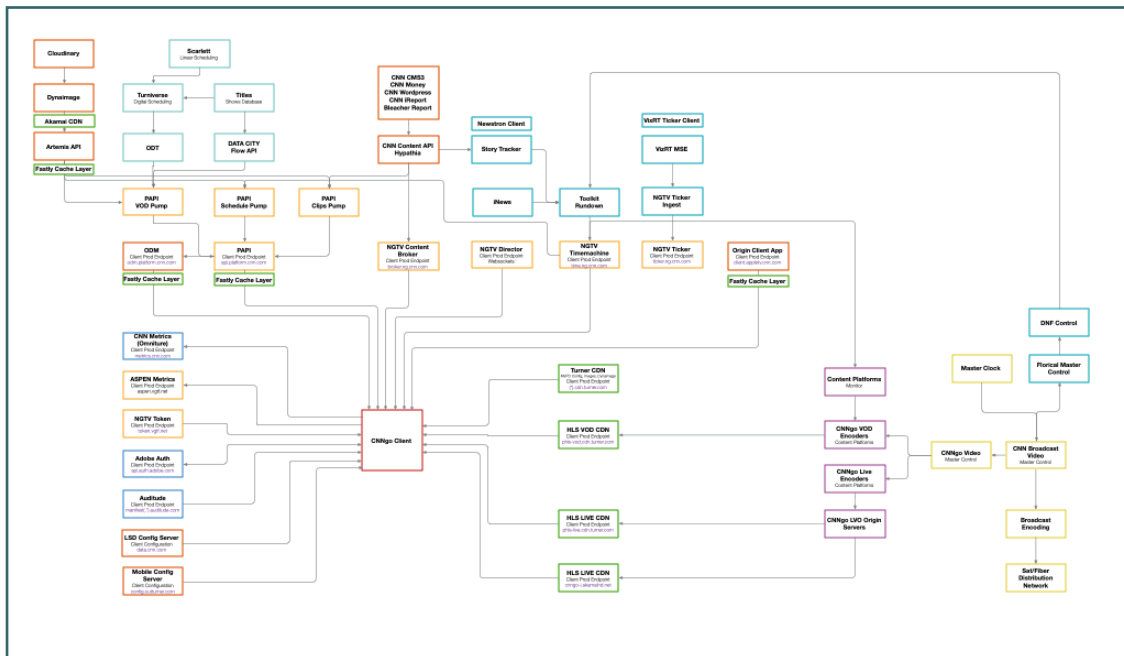
CNNgo Architecture

In addition to my Product and Design responsibilities, I was responsible for the overall CNNgo Technical Architecture.

As most of our development was done by extrenal companies, I became the Technical Head for the TV Apps implementations, where an end-to-end understnading of the product and its upstream system depenedncies was critical.

One of my main focus was the systems architecture of all the scheduling, programming, and encoding systems that made CNNgo possible. I dealt with the evolution of the Live and VOD workflows architecture.

CNNgo early App and Workflows Architecture

As Senior User Experience Lead (Director Level) I led product ideation and definition for upwave.com, a novel multiplatform health & wellness property from Turner. I provided tactical and strategic insight for experience strategies and research efforts. I also facilitated the migration to an agile UX/UI design and development philosophy across internal and external teams.

Upwave.com was an award-nominated startup inside Turner Broadcasting with a unique and fresh look. It went live from scratch in less than two months and we offered a catalog of over a thousand original content and video pieces. Moreover, Upwave's goal was to offer actionable content that could help people do positive changes in their lives.
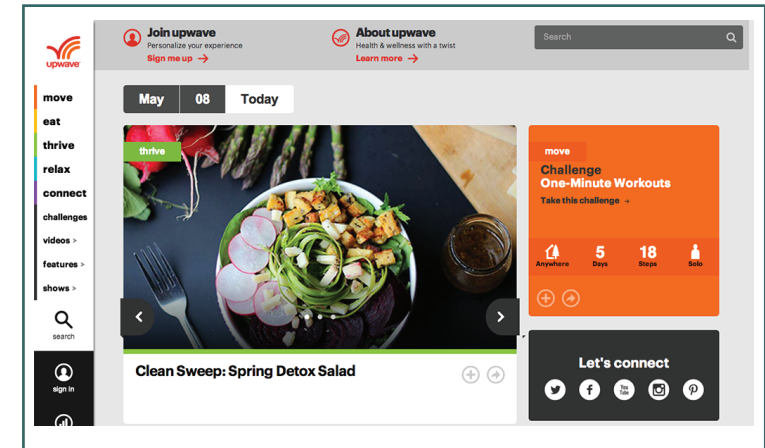
Upwave responsive website with a bold UX and design

As I led the UX Strategy for Upwave, I worked with our designers as well as with Code and Theory an external agency. On the technology side, we partnered with Pivotal Labs as one of the first efforts for Turner into Lean Product and Agile Development.
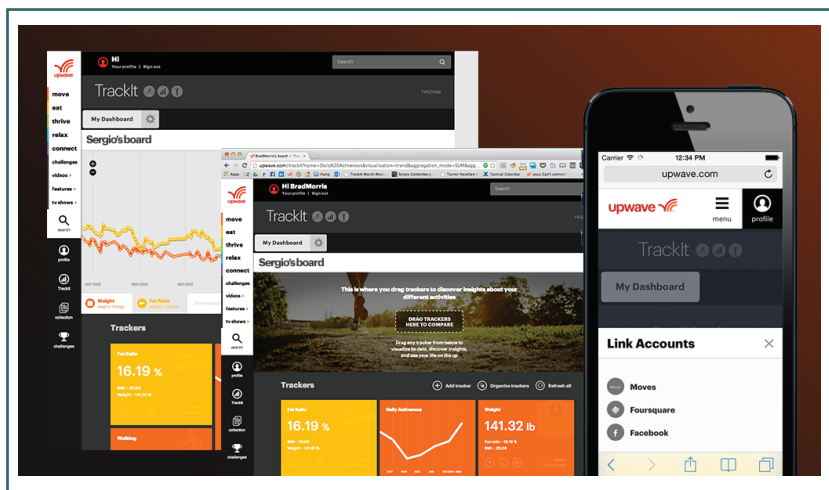
We launched Up-wave's TrackIT, a unique, personalized health tracking system, as part of a partnership with the personal analytics platform Tictrac.
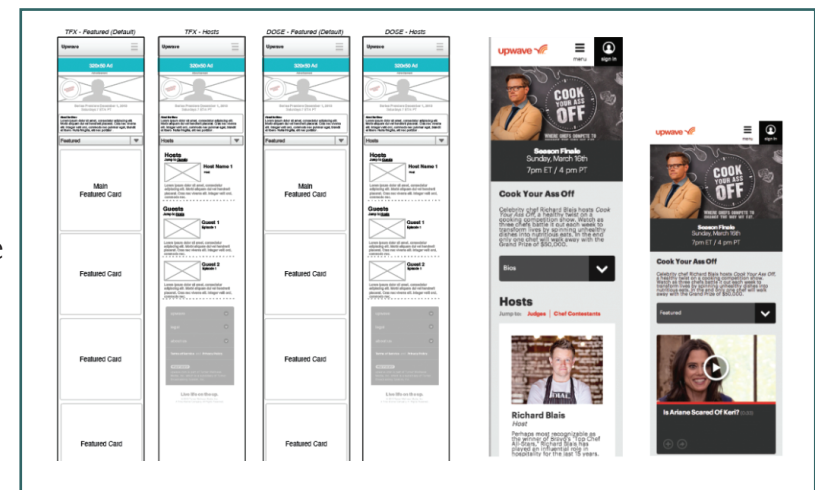
Led UX and detailed product definition for the integration with a health tracker service.

UX and UI explorations

I led Technology solutions and UX designs while I worked for Digital Valence and then Group CSE. I worked on digital strategy, product development, UI/UX, software architecture, and development of high-profile web products and services for Aflac, AT&T, Coca-Cola, CNN/Turner, Coca-Cola, Kellogg's, Synacor, USA Today, and others.

USA TODAY

At a time where interactive and multimedia was limited to Flash widgets, I migrated USA Today's 2012 Election news games to an HTML/JS framework. The software was created with levels of abstraction that made it easily portable to any use case, not just politics.

Coca-Cola

Coca-Cola wanted novel experiences for the young audiences of the American Music Awards. We created a video-voting experience and synchronous watch parties, many years before social media and Netflix made them massive. We also created a realtime events mobile web for their Essence Festival.

Kellogg's

Another focus of my UX and Technical consulting was around Content Management Systems (CMS). We partnered with Kellog's to launch their Snackpicks website on Adobe CQ.

Aflac
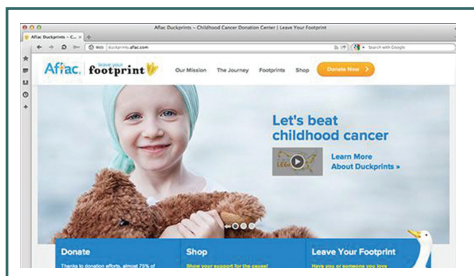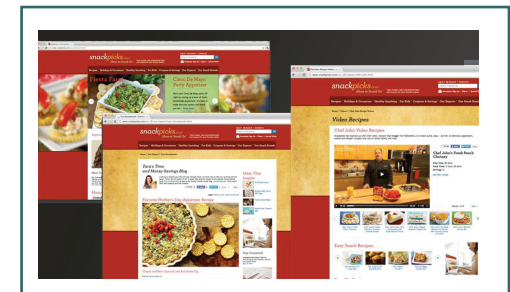
I worked on the UX design and Social Media implementation for their Footprint campaign.

COMCAST

The cable provider was in the early stages of its xFinity X1 platform, and they explored the option of having third-party apps on their set-top boxes; years before TV Apps were a thing.

Electronic Programming Guide We created an HTML/JS framework for their Electronic Programming Guide (EPG) that would run on early Samsung SmartTVs.

Apps Framework I lead the technical implementation and architecture of an HTML5/JS light framework, as it had to run efficiently on very limited processing hardware.
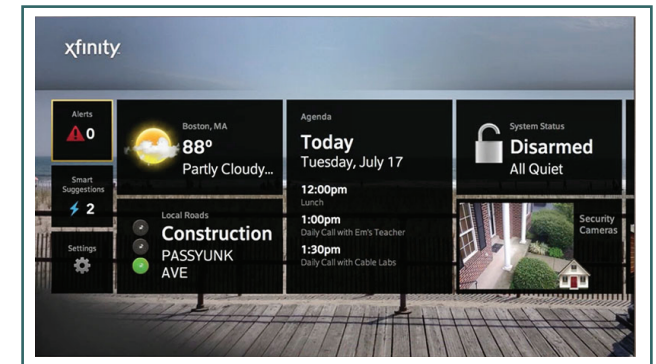
DayView One of the use cases was a user personalizable dashboard – named Dayview – that would run as a front screen for xFinity X1. It was launched announced publically in 2012 during NCTA.

EPG
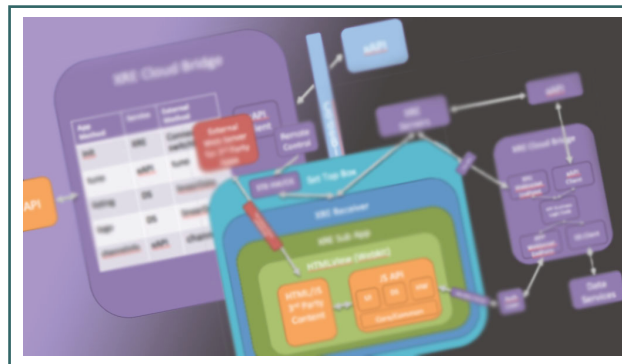
X1 Appplications Framework for HTML5
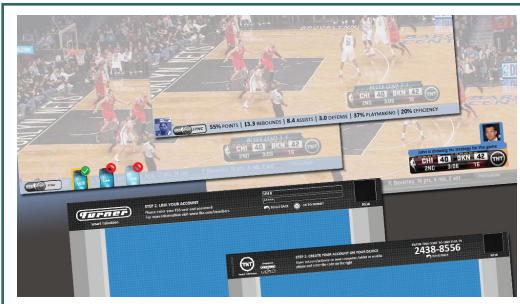

DayView dashboard in HTML5

Turner

As part of my consulting experience – through CSE, an Atlanta-based agency – I worked with the Research and Development group at Turner Broadcasting on forward-thinking projects that would be introduced across Turner brands in years to come. I worked on functional and design UX prototypes.

Election Center 2012
For CNN, I worked on data-rich visualizations for their Election Center for 2012. I facilitated UX workshops and converted the discussions into new features. Some of the ideas included segmented video highlights and video and data synchronization.
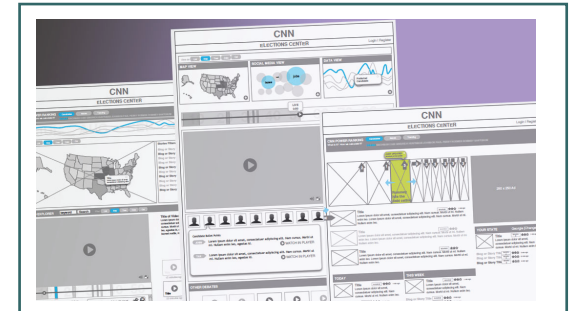
Documented ideation workshops; proposed novel features for the CNN elections site

ACR on Smart TVs
Automated Content Recognition (ACR) is an identification technology available on Smart TVs that is able to recognize markers, content, and events during a broadcast. It facilitates the creation of interactive opportunities based on what a person is watching. I created UX prototypes, design mockups, and high-fidelity video examples for different ACR use cases.

A viewer could track a specific player

ACR could be used to trigger questions to the users
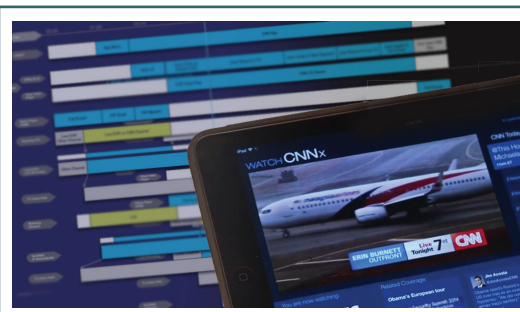
CNNgo Early Explorations
I was part of the NGTV (Next Generation TV) effort, the precursor of CNNx and CNNgo. During this consulting project, I designed an architecture that addressed the technical needs of synchronization between data events, live streaming and live broadcast. A couple years later, I would transition to CNN to lead CNNgo's OTT Product Management.

Early CNNx/CNNgo work

As a Ph.D. researcher, I managed the Experimental TV Lab at Georgia Tech from 2006 to 2011, where I led multiple forward-thinking, award-winning, and influential industry research and prototypes for interactive tv/video applications, tablet devices, video game consoles, and touch tables, with partners such as the American Film Institute, Turner, History Channel, MTV, Alcatel-Lucent, and Cisco.

Many of the subjects and design patterns described here were early iterations of video features that now can be seen across the industry, but almost 10 years later. The eTV Lab is still active and led my mentor and advisor, Dr. Janet Murray.

Smart EPG (2010) Second-screen use cases were started to be explored by the industry with the release of the Apple iPad. We explored the question of how to use the novel devices to navigate a TV lineup with a fast, efficient, and visual way to choose what content to watch.

Widgets for TV (2009) Before SmartTVs existed, we explored the space of small applications that could potentially run on cable set-top boxes. We created a framework for swappable utilities that promote active and shared viewing.

Avatar Theater (2009) Avatar Theater promotes active shared-viewing by groups in separate locations watching live or on-demand programs synchronously. Today, Netflix's and Facebook's Watch Party are examples that have made these ideas massively available.

Sync Game (2007) Our goal was to mix a tv show experience with a gaming environment: answering the question of how one would "play" a television show. The prototype aimed to bring the traditional "lean-back" experience of consuming television content into the "lean-forward" engagement of a game. The experience, which was developed in parallel to an industry product as part of the now extinct American Film Institute's Digital Content Lab provides episodes of Cartoon Network's Ben 10 animated series integrated with contextual games relevant to the content.
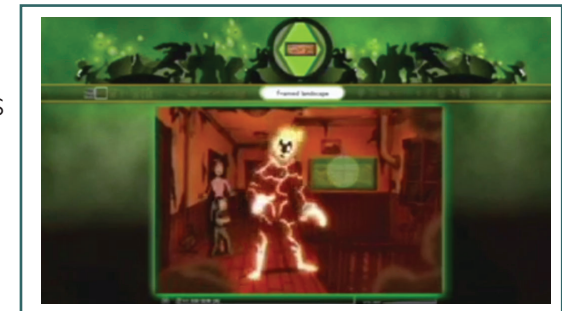
The Virtual Couch (2007) The goal of my research was to explore the question of how to enable shared viewing experiences of television. Watching television has been defined as a social experience since it is a simultaneous communication process where each viewer participates in a mutual effort of understanding and decoding what they see on the screen.

This prototype offers novel interactive television applications utilizing a DVR platform to enable enhanced communications, impulsive interactions, sharing experiences, and active discussions of small viewing groups. The prototype focused on two areas:

The power of simple and impulsive user interactions: using simple actions, such as a remote control click, the user can create a poll or share a reaction; and the importance of intimate communications: the system provides a closed environment of friends for audio and screen communication.

Award: Outstanding Georgia Tech's Digital Media Masters Project
Academic Paper: DVR's and micro-social networking – Recreating the shared. TICSP Adjunct Proceedings of EuroITV 2007,
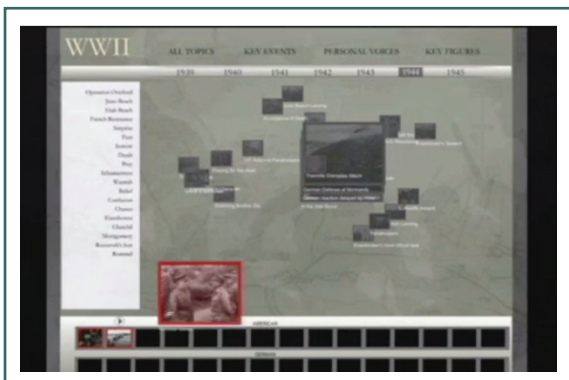
World War II – D-Day Video Explorer (2005)
The World War II Experience prototype is designed to enhance the presentation of historical documentaries on television. The prototype exploits the encyclopedic nature of digital media to deliver multiple human perspectives on complex events. A prototype for the History Channel designed as a premium offering, drawing on multiple sources and rich metadata annotations to juxtapose multiple human perspectives on a complex sequence of events.

For further details of my professional and academic experience before 2005 please visit **goldenbergmedia.com** or contact me directly.