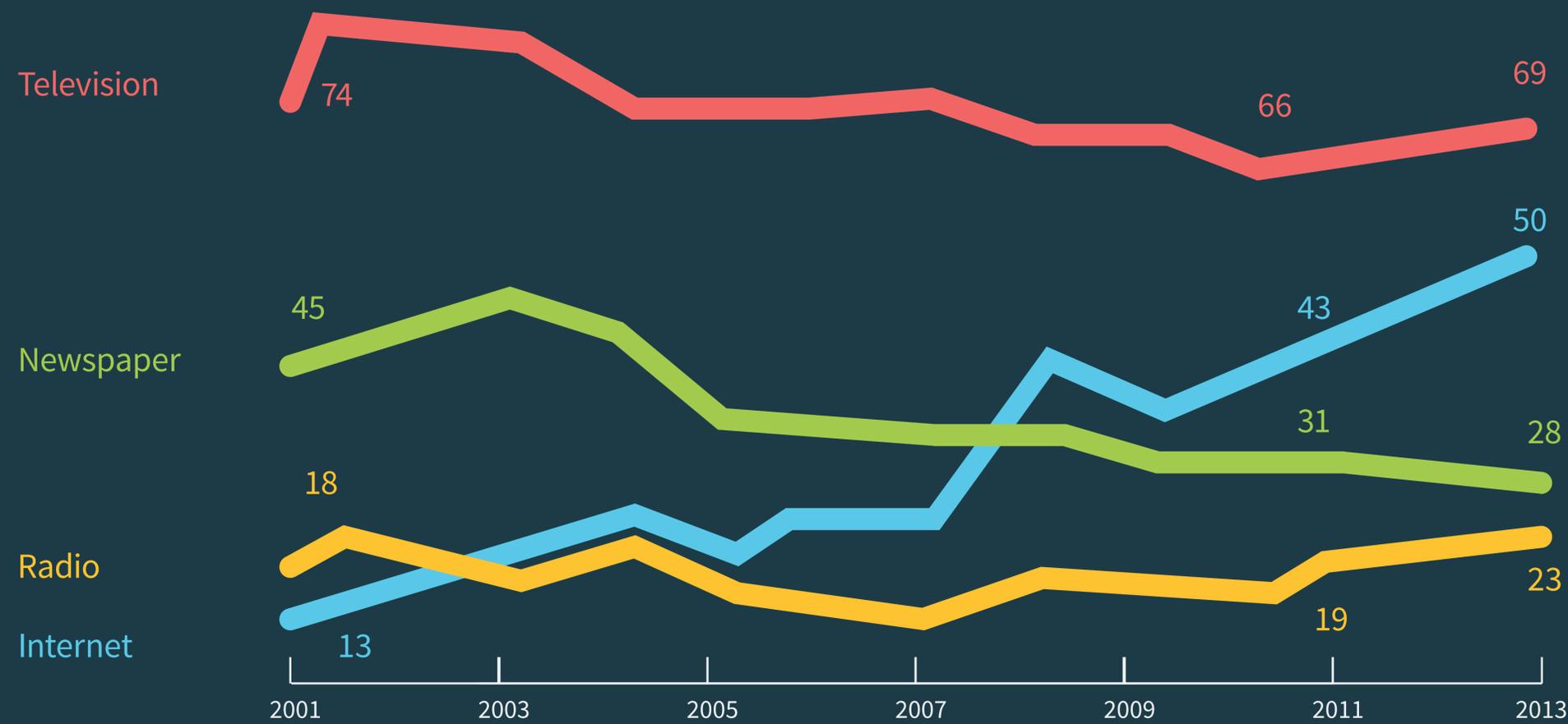# Why the Media Industry is Going Reactive

The media industry is experiencing one of the most significant shifts of the past decade. Opportunities for interactive content, video, and social sharing are breathing new life into the industry.

Main Source for News

Television
74   66   69

50

Newspaper
45   43

31   28

18

Radio   23

Internet   19
13

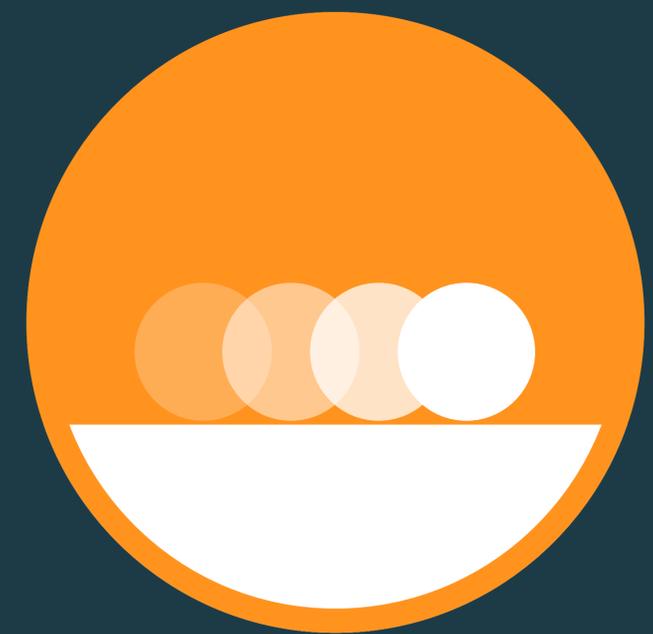2001   2003   2005   2007   2009   2011   2013

As a matter of necessity,
publishers are Going Reactive by:

Modernizing their content
management systems

Building out rich
Mobile experiences

Re-architecting applications for
Speed and resilience

Modernization

Traditional print publications are embracing a digital-first strategy. Online only publications are looking for ways to continuously innovate to maintain loyal readership. Both are challenged by monolithic, legacy content management infrastructures that can't keep up the with pace of change.

Mobility

With enhanced screen resolution, larger screen sizes, 4G access (providing higher broadband speeds) and always on-hand convenience, smart phones have rapidly become a central means of consumer access to the Web. Increasingly, users are pushing aside traditional magazines and newspapers in favor of an online experience. Users expect more than just a website. The pressure is on for publishers to respond with a rich, multichannel experience so users can conveniently consume content on browsers, smartphones, tablets, and readers.

Speed

In our always-on, continuously connected world, users demand access to digital content 24/7. Yet users expect more that than continuous uptime from publishers. They also demand blazing fast load time whether searching for content, reading an article, or viewing a video.
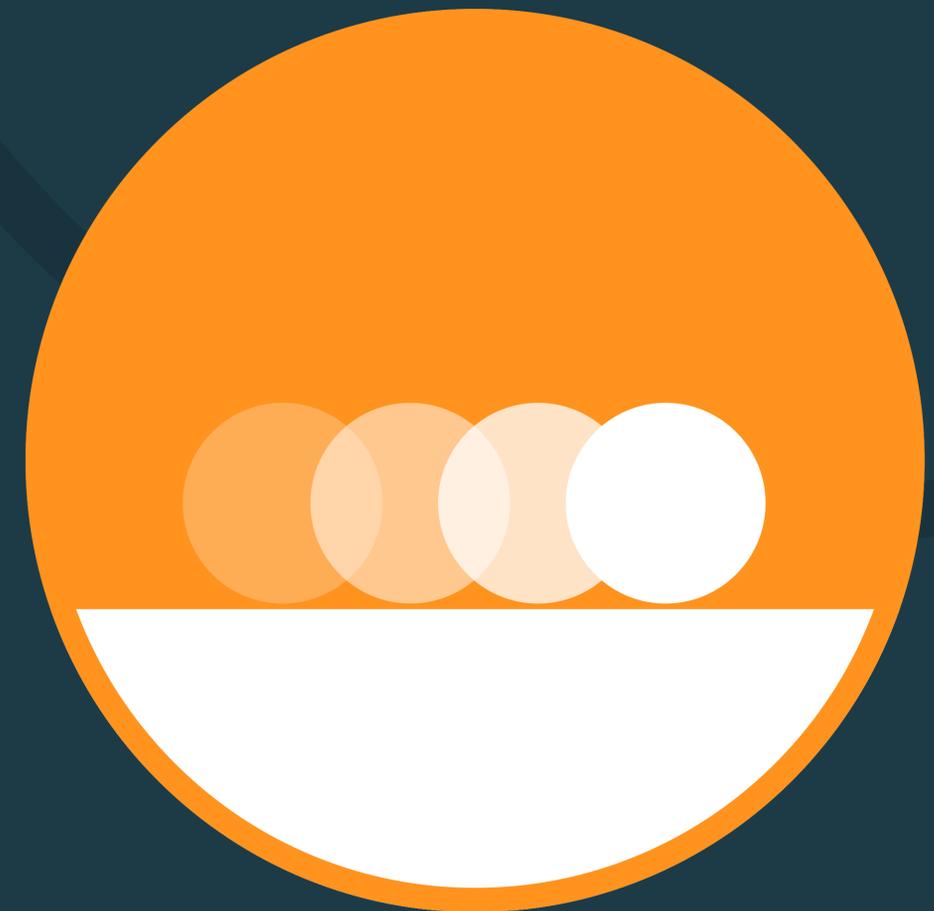
Modernization

theguardian

Challenge

When Alan Rusbridger, Editor-in-Chief of Guardian News & Media (GNM) revealed plans to become a digital-first organization, placing open journalism on the web at the heart of its strategy, the pressure was on Graham Tackley, now head of architecture, to quickly modernize The Guardian's existing web infrastructure.

Solution

Graham and his team moved The Guardian off its historical, monolithic code base in favor of a microservices framework that pushed content from various apps to assemble pages at runtime. The approach served pages faster while allowing the team to evolve the platform in new and innovative ways to enable reader engagement.
"For example, we added commenting as a microservice that appears at the bottom of every article," Graham explains. "This is really important because it moves our organization away from dictating the news to encouraging open conversations between our journalists and readers."

Result

Two years on and the strategy is continuing to have the expected impact. GNM's publications now reach more people than ever before and theguardian.com is now the third largest English-language newspaper website in the world. Embracing digital has given GNM audiences that it could not have dreamed of even five years ago. Furthermore, as part of its international strategy, they have gone from strength to strength in the US, while also opening a new office in Australia.

theguardian

Mobile

THE HUFFINGTON POST

Challenge

With more than 1 billion smartphones worldwide and tablets in the hundred of millions, mobile has changed the world we live in; and Huffington Post was feeling the impact. Eight years of growth allowed the publisher to accumulate a lot of technical debt and they were really paying the price. Their publishing platform was incredibly fragile. The infrastructure was very tightly coupled; things were hard coded all over the place. And it was at the point where it was really preventing the company from being agile and developing more quickly.

Solution

It was not only time to update the codebase and take advantage of modern programming languages and frameworks but to write code that was fun and easy to work with. The solution was a modular publishing platform dubbed Athena. It positions Huffington Post for the next wave of users who create thousands of hours of video, billions of Likes, and millions of tweets each day. Plus, it supports more than 3,000 bloggers — from politicians and celebrities to academics.

Result

"Smart content creators are creating universal content that can fit any screen and any device like a glove," comments Huffington Post's CTO John Pavely. "The HuffPost article is quickly becoming a living thing that adapts itself to its environment — be that a web browser or iPad app."

THE HUFFINGTON POST

Speed

GAWKER

Challenge

Gawker Media's gawker.com is one of the top 1000 sites in the world. The influential media group now produces eight original brands with a collective audience of tens of millions of readers. In 2011, however, visitors were leaving in droves. TechCrunch reported that a couple of the sites suffered major traffic hits, with Gizmodo and Gawker.com losing up to half of their accustomed page views.

Solution

After seven years of PHP development, the team at Gawker Media started to bump into issues with its unruly 300,000-line codebase, which was fractured across LAMP and JVM environments. Gawker Media made the move to consolidate their infrastructure under a JVM-based umbrella, and, in turn, consolidated their codebase to approximately 65,000 lines of highly performant Scala.

Result

Today, their sites are blazing fast. Alexa, the Internet-traffic measurement site owned by Amazon.com, ranked gawker.com as Very Fast (0.702 Seconds), noting that 87% of sites are slower.

GAWKER

Going Reactive With Lightbend

The Internet turns 25 this year, and while its creation changed the world forever, dramatic shifts have occurred even within this quarter century. A new architecture has evolved to let developers conceptualize and build applications that satisfy today's demands. We call these Reactive applications.

That's where the Lightbend Reactive Platform comes in. With Play Framework, Akka, and Scala, developers can deliver highly responsive user experiences backed by a resilient and message-driven application stack that scales effortlessly on multicore and cloud computing architectures.
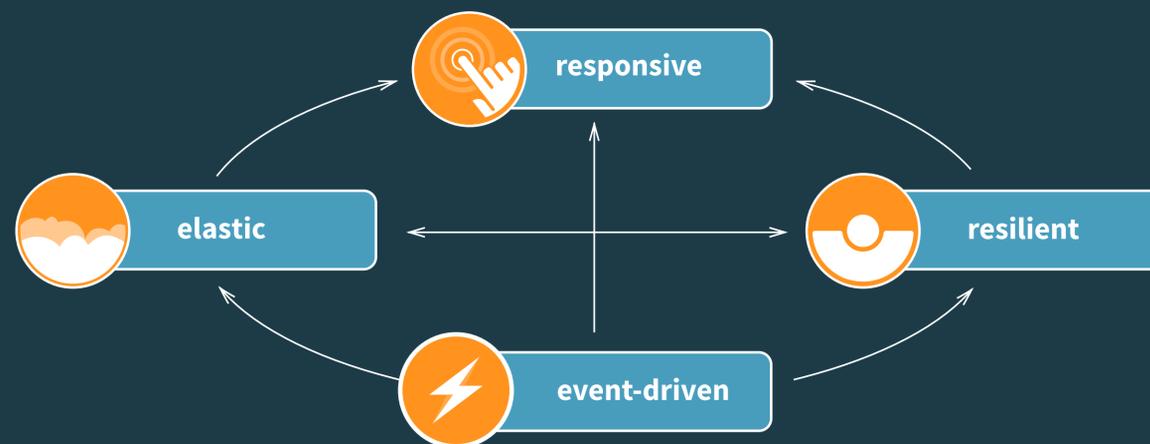
To make going Reactive easier for developers, we created Lightbend Activator, a browser-based tool with reusable templates and in-context training to jump-start Reactive application development.

To learn more about how your media company can Go Reactive with Lightbend, access these helpful resources:

The Guardian Case Study: Digital First: From Monolith to Microservices

Huffington Post Case Study: Building the Publishing Platform of the Future

Gawker Media Case Study: Decreasing Codebase by 78% with Scala