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Improving
Content Strategy

WHAT BUSINESSES CAN LEARN FROM DATA JOURNALISM

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The IBIT Report

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Foreword

Legacy media organizations are under great pressure to remain relevant in the

face of changing audience behavior and the development and expansion of technology. Many of them as well are realizing that "data journalism"—the combination of traditional journalism + data analysis + programming + visualization—provides a means to engage more deeply with their audiences. Both data journalism and traditional journalism have the same goals of informing, engaging, and entertaining.

While data journalism can provide new approaches and technology, traditional journalism offers the benefits of lessons learned and processes. In a manner similar to how data journalism can assist traditional journalism maintain and expand its audiences, data journalism's approaches can also be applied to any company's content strategy and marketing campaign.

This IBIT Report discusses several startup companies use of data journalism and illustrates techniques that are being applied to traditional media organizations and can be applied to other companies' content and brand strategies. It is a rapidly changing world and all of our customers are interacting with it in new and different ways that we need to understand.

Bruce Fadem
Editor-in-Chief
May 2015

Introduction

Data—facts and statistics that are collected and used for reference or analysis—is far from a boring group of information bits.

In fact, data is behind some of the most exciting innovations in the media world. The most promising journalism start-ups of recent years focus on data journalism, the practice of finding stories in numbers and using numbers to tell stories.

Which is great news for a variety of industries, because marketing in 2015 is all about content, and content creation requires presenting stories and information in a way that's engaging to the reader.

This report is designed to help business leaders understand the data journalism model and apply that model to content strategy and the creation of their marketing campaigns.

Simply put, data journalism is all about writing interesting, informative stories-- which is exactly what good content creation is all about, and good content equals successful digital marketing.

Data Journalism **=** Good Content **=** Successful Digital Marketing

Key Points Covered In This Report

→ Brands that already have a social content strategy in place can benefit from adopting data journalists' strategies.

→ News organizations align around three simultaneous goals: to inform, engage, and entertain. Good content marketing does the same. The hierarchy of the goals drives the end result.

→ Determining the goal—inform, engage, entertain— allows brands to create effective content and establish good workflow.

→ Creative content based on presenting data in an interesting way isn't new—think of Michelin tire company's now-famous Michelin guide with its maps and mileages. It's been around since 1900!
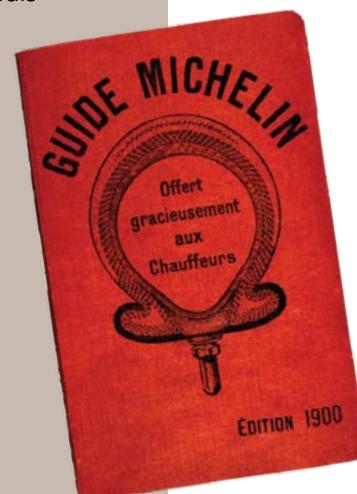
Excellent Data Journalism
Success Stories

Creating a link between sales, image, and content is the key to effective content strategy. The journalistic goals of inform, entertain, and engage are a starting point for brands; however, it is important to tie these back to the company's bottom line. Strategic choices must be made about form and subject matter and should be integrated into the content creation workflow.

The data journalism startups discussed in this report—Vox, ESPN's re-launch of Nate Silver's FiveThirtyEight, and The Upshot from the *New York Times*—excel at managing workflow to deliver premium content. This expertise comes from their roots in legacy media.

The Upshot is part of the *New York Times* corporation.	FiveThirtyEight's founder Nate Silver is an alumnus of the New York Times and the organization is now under the ESPN umbrella.	Vox's founders Ezra Klein, Melissa Bell, and Matt Yglesias all spent their early careers working with legacy media organizations.

The lessons and organizational processes of legacy media organizations remain effective in the digital landscape. Brands that seek to manage and develop content don't need to look far to find models that can be adapted for digital content.

These three data journalism startups also offer great examples of content that's been repurposed by brands in order to engage more deeply with audiences around (or using) data. By repackaging public data in an attractive, visually appealing manner, brands can attract audiences and help customers understand specific industries. Trends among customers are also fertile ground for finding content.

Once the story is discovered, simple computer programming techniques can be applied to memes or trends in order to create interactive projects that engage and delight audiences.

REPURPOSE CONTENT, REPACKAGE PUBLIC DATA, TRACK CUSTOMER TRENDS

Keep in mind, organizational shifts may be necessary to ensure that design, technology, and editorial resources can collaborate to develop innovative content.

Data journalism startups, such as those described here, provide useful examples for companies that seek to effectively align their marketing, technology, and creative assets for maximum business impact.

How Does Data Journalism Work?

Data journalists' practices derive from legacy media. In a 2014 study, Ester Appelgren and Gunnar Nygren describe data journalism as "an emerging form of storytelling, where traditional journalistic working methods are mixed with data analysis, programming and visualization techniques."

Data journalism stories are often based on large data sets, so the process of creating the stories has some structural similarities to analyzing big data. Just as corporate business analysts study data sets to achieve business insights, data journalists examine data sets to answer a question or gain insight into a social issue. However, data journalists excel at turning these insights into visuals and prose.

Data journalists are good at storytelling with data because they come from organizational contexts devoted to journalistic goals. It's useful to think about a news organization as being aligned around three simultaneous goals: to inform, engage, and entertain. Not every story does all three things at once, nor does each story succeed at each level. Routine crime reports, for example, are more informative than entertaining. However, taken as a whole, each issue of a publication produced by a news organization does inform, engage, and entertain.

Reporters and editors make strategic choices about what type of content goes into each section of a publication, a process thought of as "curation." Much like a host who anticipates a guest's needs, an effective curator selects a mix of content that educates and delights the audience.

Roughly speaking, each major metropolitan newspaper curates information into three types of sections: news, features, and services.

> It's useful to think about a news organization as being aligned around three simultaneous goals: to inform, engage, and entertain.

The purposes are not fixed. Editors and writers make dynamic choices, prioritizing goals, in order to make an entire issue seem balanced. Additional choices, for instance, about placement, add to the balance. An entertaining piece about stand-up comics would not be put on the same page as an informative opinion piece about Federal Reserve policy changes.

Curating the reader's experience is inherent to both print and digital media organizations. The Vox homepage, writes co-founder Melissa Bell, is founded on the notion of curation that changes according to world events:

> *Vox is partly based on the idea that the newest story isn't always the most important story. So we've built a homepage that's designed to link together the stories we've done over time. If the slots look unusually tall to you, that's because they are: they're designed not for one headline, but for many headlines. That way, if something happens in, say, Ukraine, we're able to offer both our newest story on the topic, but also the stories leading up to today.* (Bell, 2014)

At Vox, and similar enterprises, a person, or a team of people, use human judgment to position headlines, images, and articles on a web page similarly to the way print journals and newspapers work. Data journalists curate information while simultaneously informing, engaging, and entertaining and the decision-making process is built into the workflow.

Leveraging Data Journalism Techniques In Content Strategy

On the brand side, writers and marketers also make strategic decisions about the types of content that fit the brand's image. Red Bull's practice of planning content for social media and other channels is a great example of an effective strategy (See: "Red Bull Scores" on page 21).

"Content strategy plans for the creation, delivery, and governance of useful, usable content," writes Kristina Halverson in *Content Strategy for the Web*. Part marketing, part information design, part knowledge management, effective content strategy is an essential part of the marketing mix for top brands.

American Express also leverages content strategy effectively. The American Express OPEN Forum, a thriving online community where small business owners give and receive business advice and tips isn't used to "market" per se. Instead, Amex uses the forum to host small business owners who seek to engage with each other around their unique business issues. Amex also invites experts to contribute to the conversation by soliciting written contributions from business authorities.

SHIFT YOUR THINKING
FOR SUCCESSFUL CONTENT STRATEGY

"Media innovation unfolds through interrelated mutations in technology, in communication, and in organization," writes Pablo J. Bozkowski in Digitizing the News (2004). Bozkowski differentiates between media organizations that have succeeded with online ventures and those that have not. The successful organizations, he argues, have "articulated limited alignment with the print newsroom, enacted an editorial function structured around alternatives to traditional gatekeeping, and constructed their public as technically savvy information producers." The newsrooms that have replicated themselves in print and online do the opposite: they align themselves strongly with the print edition; "structure editorial work along the lines of gatekeeping, and represent the intended end users as technically limited information consumers."

Bozkowski's observations about the characteristics of successful media innovators may be combined with the aforementioned journalistic goals to form a working list of content strategy recommendations as follows:

➡ Shift the organizational culture so that the people who write words and the people who write code can collaborate.

➡ Empower customers to create their own visual and editorial content. Think of customers as technically savvy makers; embrace and celebrate customer creativity.

➡ Align print and online operations so that content is delivered consistently across platforms and the technical capabilities of each platform are leveraged appropriately.

Data journalism and content strategy share similar functional goals:

CONTENT STRATEGY GOAL	Plan, create, deliver, govern content that is useful and usable
DATA JOURNALISM GOAL	Plan, create, deliver, interact with audiences around content that is informative, entertaining, and engaging

In both cases, content can engage, inform, and/or entertain. It's the hierarchy of these related goals that should drive editorial decisions. With these definitions in place, brands can consider specific strategies that leverage data journalism strategies effectively for their marketing plan.

THE GOAL:
INFORM

In this data visualization, the New York Times' The Upshot created an interactive list of economically diverse competitive colleges.

:TheUpshot

EDITED BY DAVID LEONHARDT
FOLLOW US:
GET THE UPSHOT IN YOUR INBOX

SHARE

The Most Economically Diverse Top Colleges

To measure top colleges' efforts on economic diversity, The Upshot calculated a College Access Index, based on the share of freshmen in recent years who came from low-income families (measured by the share receiving a Pell grant) and on the net price of attendance for low- and middle-income families. The following table also shows colleges' endowment per student, which is a measure of the resources available to colleges. Colleges with a four-year graduation rate of 75 percent or higher in 2011-12 are included. SEPT. 8, 2014 | RELATED ARTICLE

College ⇅	Pell (2012-2014) ⇅	Pell (2008) ⇅	Pell change ⇅	Net price, low- to middle-income ⇅	College Access Index ▲	Endowment per student ⇅
Vassar	23	12	+11	$5,600	3.1	$340,000
Grinnell	24	14	+10	$10,400	2.7	$880,000
U.N.C.-Chapel Hill	21	13	+8	$7,600	2.3	n/a
Smith	23	16	+7	$11,600	2.2	$440,000
Amherst	20	16	+4	$8,400	2.0	$940,000
Harvard	17	13	+4	$3,000	2.0	$1,520,000
Pomona	18	12	+6	$5,200	1.8	$1,170,000
St. Mary's (Ind.)	24	14	+10	$15,900	1.8	$80,000
Susquehanna	25	17	+8	$18,000	1.7	$50,000
Columbia	16	12	+4	$3,500	1.6	$320,000

This is a primarily informational graphic. Its secondary goal is engagement: the fact that it is interactive invites the readers to scroll, click, and find the information most relevant to their own experiences. Entertainment is a tertiary goal; college rankings are perhaps more anxiety producing than diverting.

Overall, the graphic works well because of its clean, minimalist design that **evokes New York Times brand ethos.** This style, which is called "Timesian" in the newsroom, is achieved consistently across Times digital properties. Each interactive is produced by a team consisting of at least a designer, an editor, and a programmer and all team members are educated in the organization's intent, workflow, and the goals of the article. Certain stories from The Upshot run in print as well as online, and each presentation is tailored to the strengths of the platform.

The Upshot does a particularly good job of aligning print and online platforms. This story package had numerous text, data, and visual elements.

The core of the story package (which was effectively re-purposed, as good content should be) was the text by David Leonhardt. **In print**, this story appeared with two static versions of the data visualizations that support the claims Leonhardt makes in the story. **Online,** the story appeared with the same two data visualizations, but one of them was interactive, meaning that users could rearrange the data for a deeper dive into the subject. The Upshot's team ran the same story on both platforms, but took advantage of the web medium to add features for readers. The online package also included an
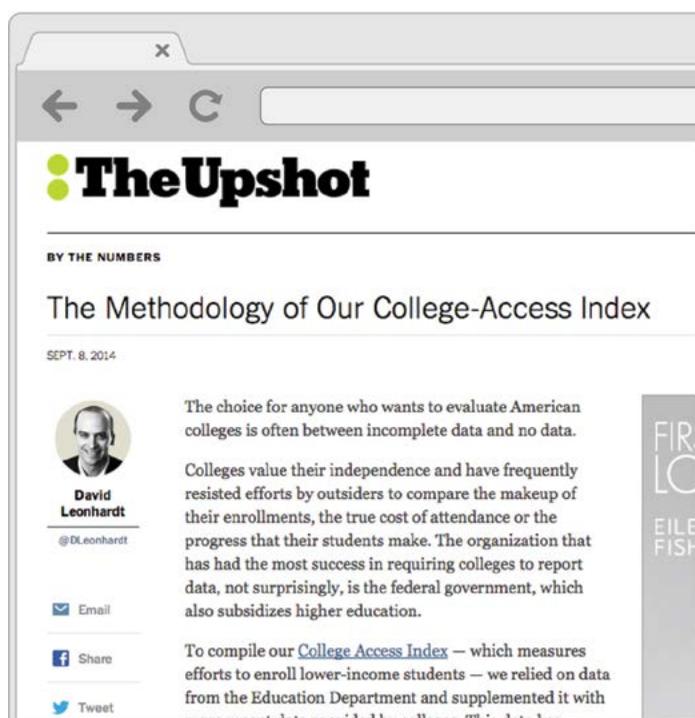
➜ A print article on page A3 of the 9/9/2014 New York edition of The New York Times, with the headline: "Measuring Colleges' Success in Enrolling the Less Affluent."

➜ An online article published on 9/8/2014 in The Upshot's section on nytimes.com, with the headline: "Top Colleges That Enroll Rich, Middle Class and Poor."

➜ An interactive data visualization published online with the headline "The Most Economically Diverse Top Colleges" that showed a College Access Index calculated by The Upshot's staff.

➜ A static data visualization published online with the headline "Endowment Doesn't Determine Economic Diversity" that showed the size of a college's endowment plotted against its percentage of Pell grant recipients.

➜ An article published on 9/8/2014 in The Upshot's section nytimes.com, with the headline: "The Methodology of Our College-Access Index."

additional text piece detailing the methodology that The Upshot's team used to analyze the data. It included links to the original data in order to increase transparency.

Looking at the original US Department of Education data (below), it is clear how The Upshot **added value with its storytelling technique.**

U.S. Department of Education

Search...

| Student Loans | Grants | Laws |

FINANCIAL AID / FINANCIAL AID PROFESSIONALS

2012-2013 Federal Pell Grant Program End-of-Year Report

Federal Pell Grant Program End-of-Year Report
PDF (2.81MB) | Zip Archive (5.35MB)

- Cover Page ▽ MS Word (47K)
- Introduction ▽ MS Word (36K)
- Table Index ▽ MS Word (30K)
- Table 1: Federal Pell Grant Program: Summary of Statistics for Cross-Year Reference ▽ MS Excel (41K)
- Table 2: Distribution of Federal Pell Grant Recipients by Expected Family Contribution and Family Income ▽ MS Excel (132K)

By presenting the data to users in a clean, visually appealing manner, The Upshot team made it more useful to readers.

The team successfully focused on a single story inside the data—how well colleges are serving low-income students—instead of trying to tell multiple stories at once. This idea of a single story is key when creating content to present to readers or clients. A data set can be mined for multiple stories, but it should be used to tell only one story at a time.

What This Means for Brands

➜ Focus on telling a single story and illustrating it with data

➜ Write a story to run both in print and online, and design each presentation in order to take advantage of each platform's strength
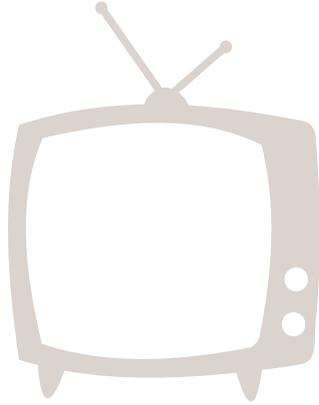
THE GOAL:
ENTERTAIN

Vox Media's John Oliver headline generator

was published in October 2014, six months after the launch of HBO's show "Last Week Tonight with John Oliver." Here, the headline generator is presented to the audience with some explanation:
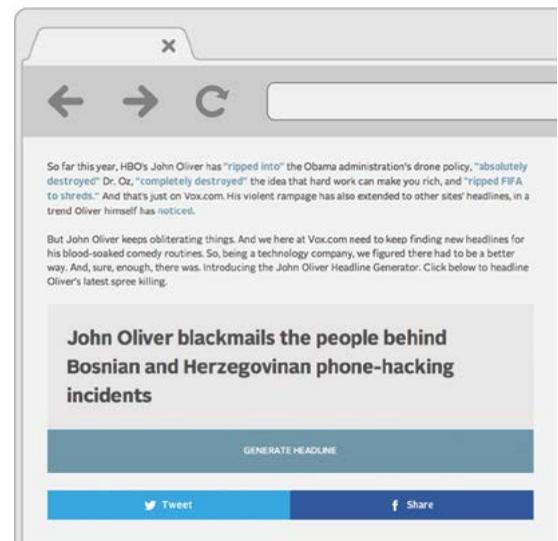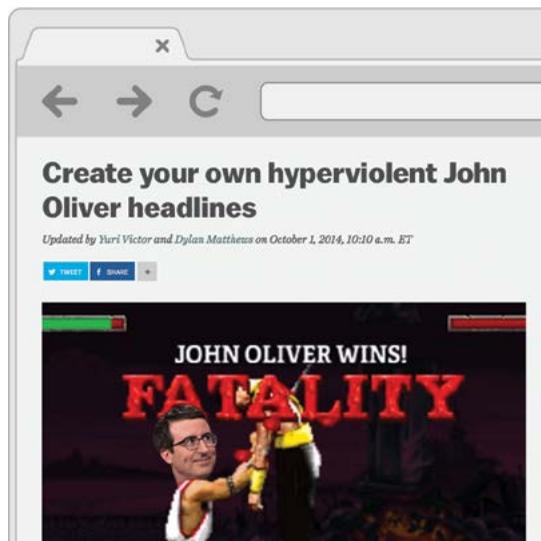
This piece is interesting because it works in spite of its potentially controversial material. Vox's audience experienced this piece as funny, not violent.

Vox's target demographic is very similar to the target demographic for Oliver's show. Both aim for the 18-35 year old market of affluent, educated, media-savvy Americans. At the time of publication, Oliver's show had about 1 million viewers on live television each week and many millions more who watched the show online each week. Some of these viewers were crossovers from The Daily Show, where Oliver originally appeared as a guest commentator. So, the humorous

A HEADLINE GENERATOR

is a simple piece of software that is often created as a practice exercise in introductory computer programming classes.

It is also a popular online joke. Headline generators are available for viral content sites BuzzFeed and Upworthy; an Internet search turned up headline generator suggestions for clickbait, tabloids, and more.

attitude toward mayhem was an appropriate editorial choice for Vox's audience-- whereas it would be in poor taste for a different audience. This is an example of effective curation.

In creating a headline generator, the Vox team took an online trope that its audience was already familiar with, and remixed it with different ingredients (in this case, John Oliver). It is data journalism in that it involves computer programming, or writing code in order to do journalism. This differs slightly from the The Upshot example, where the journalists re-purposed publicly available data. However, both actions fall under the umbrella of data journalism.

The team-based approach shows how effectively Vox has created organizational flexibility. Yuri Victor, the lead author on the piece, is a coder and designer; Dylan Matthews is a writer. An interactive piece such as this requires editorial, technical, and design labor. It is extraordinarily rare for all of these talents to reside in a single person. A team of collaborators is often necessary for creating and launching interactive projects.

What This Means for Brands

➡ Use cross-functional teams to create content. It may require organizational shifts to get technologists and writers to work together, but the creative cross-pollination can pay off.

➡ Keep track of trends in your target audience and riff on them in your content. Pay attention to what your audience is reading or watching in order to get fresh ideas about their interests.
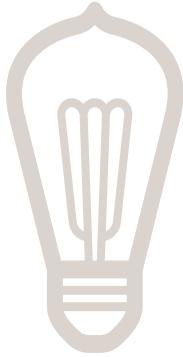
THE GOAL:
ENGAGE

FiveThirtyEight's burrito bracket project,

which purportedly attempted to determine the best burrito in the country, is an excellent example of audience engagement in data journalism.

Here is an image of the project's launch:
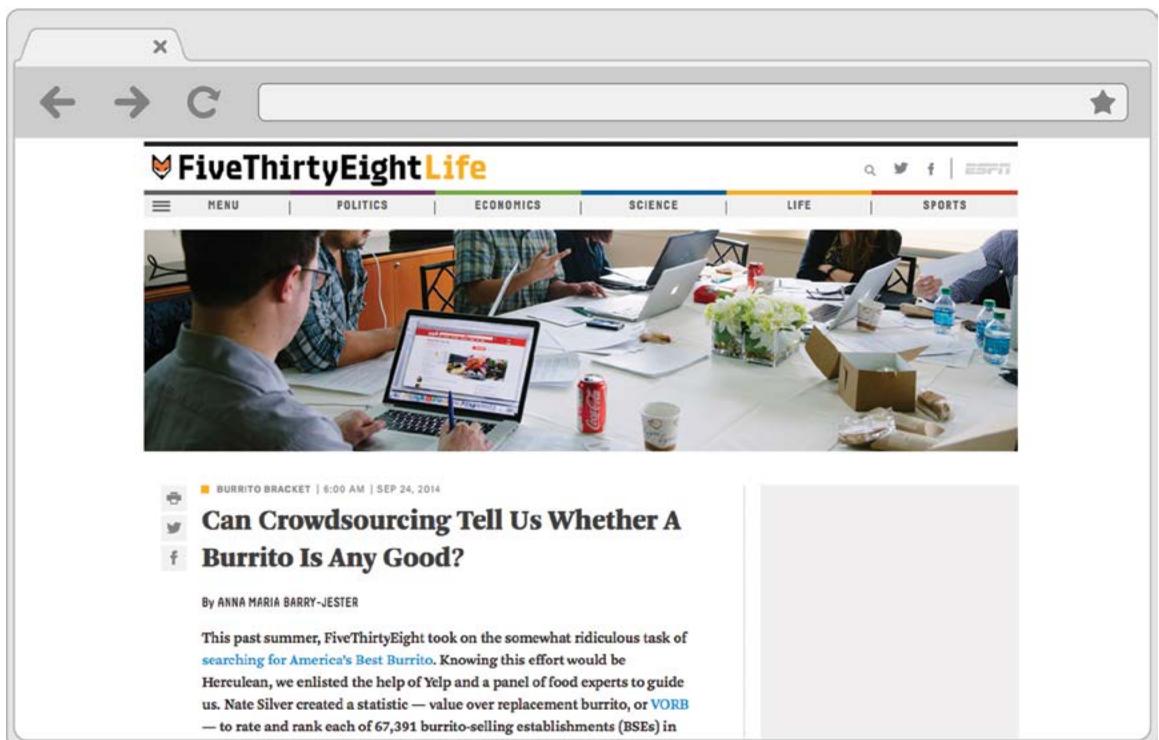
Originally, the burrito bracket was a pet project of FiveThirtyEight founder Nate Silver, a statistics guru and burrito superfan. In 2007, he attempted to apply statistical reasoning to his quest for the best burrito in Chicago:

Silver re-launched the burrito bracket as a FiveThirtyEight project in 2014 using crowdsourced data in addition to human reviews. He began by mining the enormous data set of user restaurant reviews provided by Yelp. The Yelp data allowed him to build a metric, Value Over Replacement Burrito (VORB), which yielded a score for each burrito. Reporter Anna Maria Barry-Jester went on the road to taste test and report on burrito bracket winners across the country.

Silver explained:

> The Yelp data was the starting point for FiveThirtyEight's Burrito Bracket, which will officially launch early next week and whose solemn (but not sole) mission is to find America's best burrito. There are three major phases in the project, each of which I've already hinted at:
>
> Step 1: Data mining. Analyze the Yelp data to create an overall rating called Value Over Replacement Burrito (VORB) and provide guidance for the next stages of the project. (This step is already done, and I'll be describing the process in some detail in this article.)
>
> Step 2: Burrito Selection Committee. Convene a group of burrito experts from around the country, who will use the VORB scores and other resources to scout for the nation's best burritos and vote the most promising candidates into a 64-restaurant bracket — 16 contenders in each of four regions: California, West, South and Northeast. (The committee has already met, and we'll reveal the 64 entrants in a series of articles later this week and this weekend.)

Step 3: Taste test. Have Anna visit each of the 64 competitors, eat their burritos, rate and document her experiences, and eventually choose one winner in a multi-round tournament. (Anna will be posting her first reviews early next week. She's worked as a documentary photographer and multimedia journalist, and as a producer at ABC News and Univision, where she's spent years reporting on Hispanic-American culture.)

This project involves a mix of seriousness and whimsy. Anna and I both have a lifelong obsession with Mexican-American food. We also know that burritos are not a matter of great national importance.

The bracket, a familiar image for sports fans, was the dominant visual for the project. Barry-Jensen reported from the field as she traveled the country, and readers watched the story evolve in real time. Checking in with the burrito bracket allowed readers to watch the progress toward the goal, just as checking game scores allows basketball fans to watch the bracket narrow from the Sweet Sixteen to the Final Four, etc.

There is a kind of excitement to watching winners triumph and losers fail on the way to a goal. It almost doesn't matter what the competition is—baseball or burritos. The competition itself is enough of a narrative hook to keep the reader involved.

The burrito bracket had a high degree of user engagement in part because it used crowdsourced data. Many of the people who read FiveThirtyEight (an affluent, educated, urban audience similar to Vox's) also use Yelp user reviews to choose restaurants. Yelp reviewers are positioned as "ordinary people," not professional restaurant critics; this was the first major media project that attempted to give ordinary people a voice by considering their collected reviews.

This strategy of mining Yelp for customer insights could be adapted to other creative realms beyond the burrito.

What This Means for Brands

➡ Create competitions that give customers a reason to engage and return to the site

➡ Use game elements such as brackets and leaderboards based around regularly-updated content of interest to target customers and thematically consistent with the product

Red Bull Scores When It Comes to Content Strategy

Red Bull, one of the undisputed champions of content strategy, used a bracket effectively in a recent content strategy campaign for a street basketball tournament. The image below was circulated via Red Bull Content Pool (redbullcontentpool.com), which offers more than 120,000 photos, videos, and articles for global media use and licensing.

The Queen of the Rock (and her counterpart, the King of the Rock) were determined dynamically by the results of a street basketball tournament that Red Bull organized and sponsored. Photos and graphics from the event are available on Red Bull Content Pool, the brand's online clearinghouse for Red Bull-related content.

Red Bull assumes that its customers are technically savvy information producers who will want to have access to the brand's photos and videos and articles in order to pursue their own creative projects. Users are encouraged to remix and share the content pool images, thus disseminating the Red Bull message and effectively becoming brand ambassadors by sharing the content and incorporating Red Bull into their creative pursuits.

The Red Bull content is also aligned to the company's bottom line: the brand's image, enhanced through content strategy, drives sales.

Red Bull also publishes two different lifestyle magazines for its fans. The brand regularly posts photos and videos about extreme sports and adventures that fans share widely on social media. Death-defying stunts, performed in Red Bull branded gear, are staged, filmed, and shared.   Now that's engagement!

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Professor Broussard teaches courses in data journalism, journalism research, and entrepreneurial journalism. Her work focuses on data-driven journalism, with a particular interest in using data analysis tools to understand risk perception in everyday life. Her professional experience includes serving as Features Editor at the Philadelphia Inquirer, a Member of Technical Staff at AT&T Bell Labs, and a multimedia software developer at the MIT Media Lab. Her work has appeared in Harper's, Slate, The Washington Post, Philadelphia Magazine, the Philadelphia Inquirer, the Huffington Post, and other outlets.

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