

Content

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Introduction

Consumers use a multitude of digital channels to research products, make purchases, access customer service and participate in loyalty programs. They expect brands to deliver personalized experiences across devices and quickly click to a competitor's site when brands fall short.

Even traditional companies are now investing in digital-first direct-to-consumer strategies and the modern technology needed to support them. Modern tech stacks empower companies to lead with the digital experiences consumers want and even integrate those into physical shopping experiences.

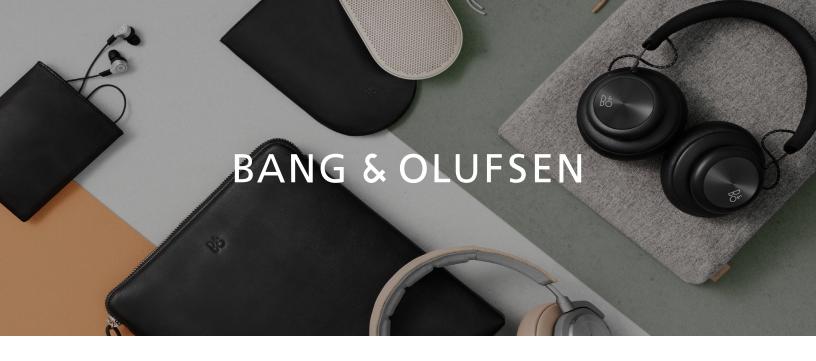
Content is the thread that pulls together a brand's mobile apps, ecommerce sites, online and offline experiences. Keeping content at the heart of your tech stack is critical to providing a consistent customer experience across devices, channels, languages and media to drive customer engagement, loyalty and retention.

In this ebook, you will learn how leading consumer brands engage their customers across channels by using a modern content management platform that unifies content and structures it for delivery on any digital channel. Contentful helps companies like Leica, Bang & Olufsen, Asics and Glossier build digital experiences faster and scale them as their business grows.









How Bang & Olufsen is making significant ecommerce gains

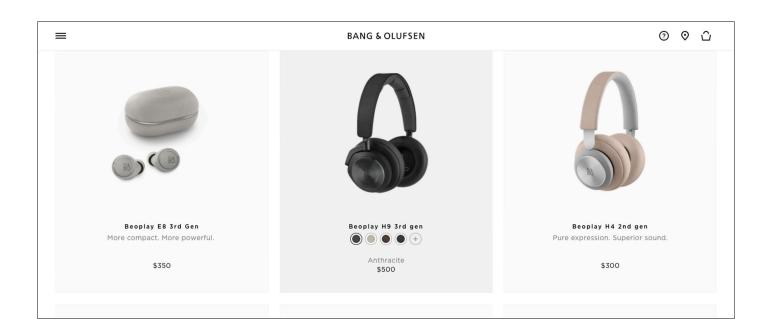


Bang & Olufsen leads the way in luxury audio-visual design and production. The Danish brand has been improving speakers, headphones, and televisions for more than 90 years - now reaching their customers through 700+ stores and multiple online channels. Their old monolithic ecommerce and CMS platform wasn't keeping up. A microservice stack with Contentful at the center has changed all that.

THE CHALLENGE

B&O wanted to meet their customers where they're at - in their regions and languages, on all their personal devices and in-store displays.

But they didn't have the tools to get there. They had one monolithic platform that included both their ecommerce tools and content management system. This setup limited their ability to connect with individual customers and communicate a consistent message across multiple



channels. Their product website and digital store were separate sites, and they struggled to connect online and through in-store sales systems. Despite the shared platform, nothing ran seamlessly.

MOVING FASTER WITH MICROSERVICES

A microservice structure with headless components solved B&O's problems. This deconstructed architecture gave them the necessary flexibility to design and implement customer experiences both online and in stores.

B&O deployed Contentful, which is built on AWS, as their content solution and Commercetools for ecommerce. Contentful's extensibility, quick response times, and simple ways of creating and supporting a range of content also motivated their decision to rebuild. The two services are built to work with other components. They not only work well together, but they enable B&O to expand with other microservices whenever needed. Powered by Contentful and Commercetools, B&O merged their two websites into one. Now customers could learn about and purchase the latest products in one place. They also connected their ecommerce and all in-store IT systems. Contentful powers in-store digital experiences with consistent content, regardless of the store's presentation technology.

THE NUMBERS SAY IT ALL

Tomas Krag, director of ecommerce at B&O, says they've been tracking the numbers and they look great:

- Load times decreased from 16-20 seconds to 3-4 seconds
- Ecommerce conversion rate increased by 60%
- Cart-to-checkout rate of progression more than doubled
- Average order value increased by 13%
- Conversion rate from online store search is three times higher



Leica Microsystems uses Contentful to dramatically improve the performance of its mobile app

Leica Microsystems approached Fast Fwd with a request to develop an iPad app that would introduce researchers and life. sciences students to confocal microscopy methods and technologies. The app needed to provide users with a library of important technical papers and practical product information accompanied by high-quality visuals. The initial version of the app used Wordpress as a mobile backend, but due to a number of limitations, the app was later relaunched on the Contentful platform.

WORDPRESS AS A MOBILE A BACKEND

Each year, Leica Microsystems brings several new devices to the market and releases numerous updates to its current range of products. Constrained by deadlines and working with a busy pipeline, Leica's staff needed a quick and uncomplicated way to add new content to its iPad app.

A Wordpress CMS seemed like a natural choice for managing in-app content, so the initial version of the app was built on a customized Wordpress platform.

"We used the advanced custom fields plugin to extend Wordpress's content modeling functionality and the WP API plugin to expose the content for use in mobile apps," explains Shashi Saurav, the lead developer on the project. The team got to guerying the WP API in minutes, but the structure of API responses left much to be desired. "The WP API plugin limits the API endpoints to default entities, requiring us to spend another couple of days writing plugins for custom content types," notes Saurav.

In the prototyping phase, more problems came into view. Fetching content required multiple API calls and responses suffered from high latency. Workarounds that worked elsewhere now just led to numerous dead ends. "As a result, we were left with a

beautifully designed app, but knew it could perform better," explains Kishen Hawkins, the founder of Fast Fwd agency. "Even with a stable Wi-Fi connection, it would take four to five seconds to load an entry, leading to poor usability."

GETTING UP TO SPEED WITH A NATIVE API

Six months after the launch, concerns about the Wordpress API performance and security record led to a follow-up project aimed at relaunching the app on a more robust backend. Contentful's lean user interface initially caught the eye of the team, and soon enough developers were creating sample entries and testing the API capabilities of the platform. Happy with their initial tests, the developers proceeded to migrate the ongoing project to the new platform and five days later they had a fully functional app.

The Leica iPad app combines highresolution imagery with relevant technical documentation to educate users in confocal microscopy techniques.

The immediate benefits of using Contentful as a mobile backend became obvious

during the initial development phase. "Contentful makes very few assumptions about the structure or purpose of the content it serves," explains Matthew Jensen, the executive director at the agency, "making it extremely easy to consume and customize the API." The developers share his sentiment: "The API latency is super low, responses are compact and well structured and thanks to official SDKs we can build apps without ever going back to PHP," says Saurav.

The true advantage of migrating to Contentful, however, had to do with the performance gains of the Leica app.

Swapping a Rackspace Cloud Sites-hosted Wordpress instance for the Contentful cloud service with its built-in CDN cut down latency by a factor of two. "The iOS SDK has allowed us to seed the app with the initial content and use the sync API to fetch any updates made since the app has shipped," explains Mr. Hawkins. "Thanks to these networking features, in-app interactions now feel instant. The speed improvement we observed was staggering."





The Leica iPad app combines high-resolution imagery with relevant technical documentation to educate users in confocal microscopy techniques.

THE EDITOR'S DIVIDEND

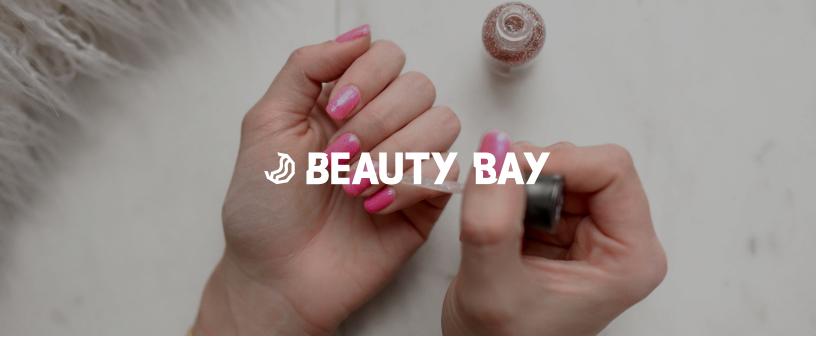
The big question at this point was: how would the new CMS fare with the editorial team at Leica? While the clean user interface. made for straightforward navigation, Contentful also introduced a number of novelties, including a flat content structure and markdown for text fields. Jensen explains, "Some editors might feel that migrating to markdown robs them of essential controls like font sizes, text color or paragraph alignment. In reality, removing these styling options ensures a consistent presentation of the text across all devices and platforms."

This last point was not lost on the Leica team, who are considering an Android version of the app. "Transitioning to markdown was very simple for us... by eliminating the markup code that routinely gets smuggled from Microsoft Office documents, it also reduced the time it

takes to prepare an entry for publishing," says Isabelle Köster, a scientific writer at Leica Microsystems. According to her, the combination of markdown and streamlined content templates "resulted in a visibly shorter path to publishing, leaving us free to focus on the substance of the materials we put out there."

RESULTS

By providing cutting-edge content on confocal microscopy methods and technologies, Leica Microsystems enables life science practitioners and university students to build valuable technical skills. To succeed in this mission, Leica needed an app that was quick to update and easy to use. By relaunching the app on the Contentful platform, Fast Fwd has delivered on both promises: The editorial team can update the app anytime using an intuitive tool, while users benefit from instant interactions and continuously updated content.



Beauty Bay makes their ecommerce stack agile

Beauty Bay is Europe's largest independent online beauty product retailer. The company's website handles a massive amount of content, with over 10,000 products from over 200 brands, as well as an online magazine and customer photos.

As the business grew, some of the company's aging technologies could not support the required agility required to evolve the company's website scale. The site used multiple systems to publish and manage content, including an ERP and enterprise search, and editors had to wait at least 24 hours to see changes. With a new microservices approach, the team combined Contentful with a modern ecommerce platform, Attragt, to achieve much higher velocity.

With Contentful, the site update workflow has gone from 24 hours to 10 minutes, and new pages now take less than 40 minutes to deploy. Next, the team plans to move their online magazine to Contentful and start integrating rich editorial content into the ecommerce journey.



"Adopting Contentful's API-first technology means that we can retain the control of our core IP and manage our content in any shape or form, in an agile way. We are no longer shackled to a specific platform"

- Nik Southworth, CTO, Beauty Bay



ASICS / AQ make marathon racing more engaging with the Contentful platform

ASICS commissioned the digital agency AQ to develop a companion app for marathon runners. The app provided useful tips and key logistical information before, during and after a race. In the course of developing the app, AQ tackled a number of contentrelated challenges.

HIT THE GROUND RUNNING

Preparing the content for the marathon app involves a lot of coordination. ASICS representatives communicate with organizational committees to obtain logistical details. The project team also works with different departments within ASICS to incorporate fitness tips, nutritional advice and practical checklists into the app.

As the date of the race approaches, the AQ team typically goes through multiple content revisions incorporating last-minute logistical changes and updating the gear section with event-related merchandise.

"Initially, we managed this workflow with emails and spreadsheets," says AQ partner Paul Baron, "But as the number of apps and supported platforms grew, we realized that production flow needed to be upgraded."

"We wanted to move to a robust, flexible platform that would help us easily manage content," says Baron. "Contentful matched all our criteria and we found working with the system to be very straightforward. But where Contentful really surpassed our expectation was when our client team at ASICS started using it and got up to speed in no time."

RISE TO A CHALLENGE

Accommodating different types of content within the same platform was another challenge. The marathon app includes geotagged data, race videos and merchandise images, as well as a lot of textual information. Open-source alternatives

like Wordpress and Drupal provided an efficient way to manage standard web pages, but hacking them to support inapp content was a risky undertaking.

Even more importantly, applying these hacks for each new version of the app promised to add mountains of technical debt to the project. "Replicating our app's complex content model in Contentful was a crucial test to check how flexible and scalable the platform was," notes Baron. "In the end, we were done with content mapping in just a few days and I was amazed by how easy it was to go back and modify the model whenever we needed to streamline a certain section."

City-specific marathon apps help ASICS fans to stay up to date before, during and after the race.

By defining their custom content model, AQ benefited from built-in validation options, which alerted content editors to recommended entry length or permitted attachment types. "Validating content entries saved us a good

chunk of time by immediately alerting content editors to problems with their submissions," says Baron.



SUSTAINED OXYGEN BOOST

Once the latest edition of the marathon app ships to the App Store and Google Play, the team's focus will shift to long-term goals. As Baron explains: "Given how successful ASICS is at engaging with marathon runners, we expect to double the number of races supported by the Marathon Navigator in the foreseeable future." In this context, it is important for the team to be able to reuse, extend and update in-app content created to date, without doing all the legwork again.

To eliminate the duplicate work, AQ tapped Contentful's content management and delivery APIs to automate duplication of content, and then used the editor view for updating content and adding new sections.

The time saved by the editorial staff does not even come close to the productivity leap seen on the development side: Thanks to the robust content delivery API, the development cycle was reduced by several orders of magnitude.



"We can now build apps at least two to three times faster than before! All the while avoiding technical debt and allowing our client to directly manage and update the content."

- Gueorgui Tcherednitchenko, CTO, AQ



Aldo transforms from brick and mortar store to global taste-making retailer

THE ALDO GROUP'S DIGITAL JOURNEY LED THEM TO OUTGROW THEIR CMS

As the Aldo Group matured digitally, they were looking for a CMS that could keep up with the growth. Content plays a key role in the Aldo Group's ecommerce and retail strategies, and they were concerned about losing time when making content changes. Along with improving publishing time, they were looking for a system that has versioning functionalities.

> This was getting in the way of digital initiatives like conditional

> > content, bi-variate testing

and personalization. For a company that values knowledge of the customer and serving curated experiences to its clientele, these

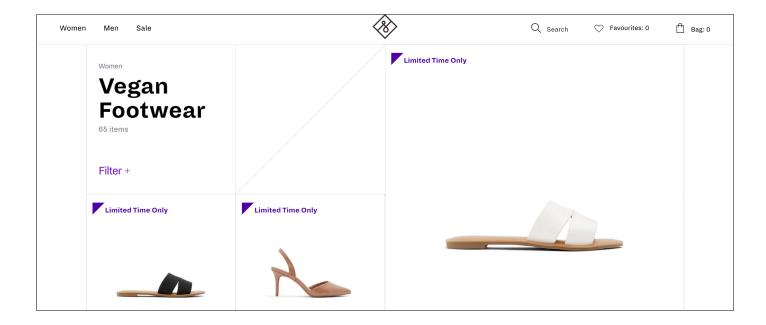
digital initiative roadblocks were businesscritical.

The Aldo Group needed a solution that was robust and flexible enough to support them through their digital journey. When Callitspring.com planned to launch a new website, the Aldo Group recognized that it was time to try something new. They had a few key requirements for their content solution: a robust feature list, security, easy implementation and a sterling reputation.

RESULTS

The Aldo Group implemented Contentful for all UI elements across Callitspring. com, Globoshoes.com and Aldoshoes. com. Landing pages, promotional banners, tiles and copy are all managed through Contentful's content platform.

The marketing and merchandising teams boast 30 Contentful users, and now completely owns content publishing. For



large launches and initiatives, the marketing team can take care of content ahead of time and not worry about potential bugs or blockers related to the CMS. For example, the Aldo Group was able to plan and execute all of their content for an SAP launch far ahead of time. The day of launch, they did not need to think about content issues, they were able to focus on the technical aspects of launching a new system.

The biggest return, ultimately, is the time saved for both marketing and technical teams. Since no deployments are needed, the developer teams can focus on higher value initiatives as they move away from a content support role. Marketing teams are also more efficient in creating content refreshes.

Time-to-publish has gone down significantly, as the marketing teams are able to create and implement continuously refreshed content. They're also freed from mundane tasks, and are able to share more creative stories with users.

Contentful has become a foundational piece of the Aldo Group's content strategy going forward. It provides a direct communication channel from the marketing team to end users. As the experimentation and personalization programs mature, The Aldo Group plans to use this strong foundation to continue making sure that customers receive the most relevant, useful experience. For its next project, the Aldo Group plans to use Contentful to create a personalized loyalty program.

KEY LEARNINGS

- Understand the limitations of your current system and pain points of ALL users of the tool.
- Ensure that the new system aligns with strategic initiatives 3-5 years out, not only with today's digital platforms.
- Spend 80% of project time thinking out the problem (user pain points, limitations, technical considerations) and the rest implementing the solution.



Kärcher drives customer engagement with Contentful and Alexa Skills

Kärcher has manufactured functional, user-friendly, sophisticated cleaning products since 1935. Kärcher wanted to be the first in its field to give customers the ability to ask questions and control devices using voice control. Their commitment to digital transformation led them to develop Alexa Skills. They enlisted the Kärcher Digital Innovation Hub and Zoi TechCon GmbH to tackle the challenge. Amazon provided the framework and hardware, and Kärcher had all the information ready to be embedded into the skills. However, the real challenge was how to handle the content storage, management and delivery.

BUILDING ALEXA SKILLS WITH CONTENTFUL

Content models need to meet the standards of the voice provider and remain accessible to editors. If the models are not built correctly, Alexa cannot

process prompts nor return the requested information. Editors need to publish content in several languages and have long-term, easy access to it, especially if updates are needed.

Zoi handled the market research with a cross-functional team. After a series of reviews, they chose Contentful for its flexibility, security and user-friendly interface to solve the content challenge. The team began by building a proof of concept before moving on to creating a content model for the full-scale project.

After building the content model,
Zoi developers were able to work
simultaneously with Kärcher editors. The
developers connected the GraphQL
Content API and the Alexa API, which let
editors manage voice content in the custom
content model through the Contentful
web app. Editors began rewriting and

condensing content. For voice assistance, brief statements are preferable (it's far easier to read long sentences than listen to them).

With their content stored in Contentful. iterating was painless. The team ran through three additional iterations of the content model with user testing. Working this way enabled them to continually make any necessary adjustments. They learned helpful, unexpected information this way. For example, slot values can only be used once. Using the same word multiple times caused Alexa to stall.

ASK ALEXA FOR KÄCHER CLEANING TIPS AND CONTROL DEVICES VIA **VOICE CONTROL**

With Contentful, Kärcher developed and released two Alexa Skills. Want to control the irrigation in your garden or find the right high-pressure washer? It's simple. The first Kärcher Alexa Skill allows you to control the Watering System Duo Smart Kit with Alexa. And, discovering the perfect Kärcher product or cleaning advice has never been easier with the Kärcher Info Skill.

Ease of localization in Contentful makes scaling across markets and languages

simple. The Control Device Skill is now available in four markets and three languages: German, English and French. The Content Skill is also available in several markets and in two languages: German and English. Their content can now be reused chatbots and the Kärcher IoT-enabled machines.



"The integration of Contentful reduced the complexity of our architecture due to the excellent API and technical documentation in combination with the convenient backend for data modeling."

- Jens Hildenbrand, program portfolio manager ecommerce & customer journey, Kärcher

KEY LEARNINGS

- Test repetitively with real people. Include feedback from users testing the product from the beginning of development. This process ensures your product remains user friendly and solves actual challenges.
- Voice systems are built on different content structures than traditional apps and websites. They can also be used in chatbots and help pages. Limiting the content length is critical.
- Minimize complexity in your content structure to reduce barriers between editors and content.



How Glossier is building the ecommerce stack of tomorrow

Glossier is a back-to-basics, beauty company with a product portfolio that spans from skincare, makeup, body care and fragrance. It is a digitally native beauty brand that has built a cult of following, particularly among millennials. Like any direct-to-consumer company, content is a huge part of what Glossier does. What made Glossier really stand out is their belief that "brands of the future will be co-created." Its goal is to connect to real people, rather than just selling or advertising.

BRINGING CONTENT TOGETHER WITH COMMERCE

Unlike traditional beauty brands, Glossier started with content and then moved to commerce. For Glossier, content is the lens through which they create and sell new products, launch in new markets, and generate energy with their brand

 it's at the heart of what Glossier does. Into the Gloss is the blog where Glossier originally started and continues to build a thriving community for customers to share, discover and discuss their beauty routines and favorite products. In 2015, Glossier launched glossier.com, its commerce site for customers to buy and review products. Glossier is creating a people-powered ecosystem platform with content spanning from columns by Glossier ambassadors to blogs, Instagram, podcast, video, and website content, just to name a few.

When it comes to content and commerce. "Consumers face a very disconnected shopping experience where they try to collect all this information together when they are trying to make a purchase decision, and we want to break that hassle and ultimately deliver a more engaging and better customer experience," Bryan Mahoney, CTO at Glossier, says. "That's

why we want to put the power of content creation and curation all under one roof."

What comes as a huge opportunity also brings new challenges. With the great success and scale of Glossier, the old architecture and framework built on a traditional monolithic platform cannot accommodate its needs anymore. For example, Into the Gloss has some 1.5 million unique visitors every single day, and the framework used for glossier.com was built to facilitate transactions instead of content, which is not working for them anymore. "We found ourselves over time introducing 10, 15, 20 custom attributes to the data model to add more content, and suddenly getting much closer to a monolith, which was what we wanted to avoid from day one," Mahoney says.



"By using Contentful, our engineering team can focus much more on value-added features to drive better customer engagement, rather than spending time to create and maintain CMS infrastructures. We moved away from a statically generated site to a dynamically generated one."

- Bryan Mahoney, CTO, Glossier

ACHIEVING PORTABILITY AND FLEXIBILITY WITH CONTENTFUL

The Glossier team was very clear about what it was looking for. "We strongly believed in API first to encourage portability and flexibility, and that's how we can move our brand into the direction that our customers want, listen to their feedback and iterate quickly," Mahoney says. With some early successful pilot experience of Contentful on Into the Gloss the team decided to move quickly with Contentful on glossier.com as well. The workflow around introducing content changes is well understood, the solution is proven to be robust and scalable, and they decided to strip the commerce framework back down to its core. Now the team uses Contentful to manage any content instead of resorting to custom-built solutions.

By using Contentful, engineering hours can be dedicated to creating more value-added features and channels to engage customers, rather than to maintaining backend infrastructures like CMSes, or granting permissions to publish content. In particular, the engineering team is able to roll out complex A/B testing much faster so they can make the shopping experience more personalized for customers.





Freeletics optimizes the health of their global fitness apps

Freeletics's web, mobile and smartwatch applications offer state-of-the-art coaching in fitness and nutrition, as well as a shopping portal for the latest gear. The Freeletics experience is translated into numerous languages and localized for global markets.

Over time, Freeletics's infrastructure became extremely complex and included an unwieldy number of Wordpress sites and CMS instances. On average, it would take two weeks to deliver a new localized landing page. The Freeletics team decided to rebuild their web stack

using Contentful as the underlying content layer. The new architecture gave them the flexibility to run more targeted marketing campaigns for each language and market. Translators and editors could work directly within the web app without additional technology or support. In addition, they used the Contentful images API to enforce specific image guidelines for quality and consistency.

Contentful enabled Freeletics to publish new localized landing pages in less than 30 minutes. Marketers can now easily explore new ideas and engineers have a simple stack that is much easier to maintain.



"We originally managed our content via a Wordpress CMS – or should I say 'CMSes'? Each language had a separate website, plus its own support center, knowledge base, and blog. That's a lot of Wordpress sites...Now, we have a simple stack with Contentful on the backend. It's super easy to maintain."

- Remi Barraquand, web engineering lead, Freeletics

Content management platform designed for modern tech stack

By taking a platform approach to content management, you'll be able to scale and accelerate digital innovation. Empower business and technical teams, add any number of third-party services directly in the web app and make your growing content network your competitive advantage.

At Contentful, our mission is to modernize the way content flows and lead the transition from legacy CMS to a modern content platform. Our platform is purposebuilt for the modern tech stack, allowing you to manage all of your content from a

single hub, publish to any digital channel and integrate your favorite cloud services with our industry-leading app framework. Our expertise, partners and developer community are all there to help you as you build your next amazing digital experience.

We've helped industry-leading companies accelerate and scale their digital strategies. If you are looking for the most effective way to streamline content operations across all channels and build customer-centric digital experiences that drive results, we'd love to partner with you.

Join the Contentful journey with other top retailers











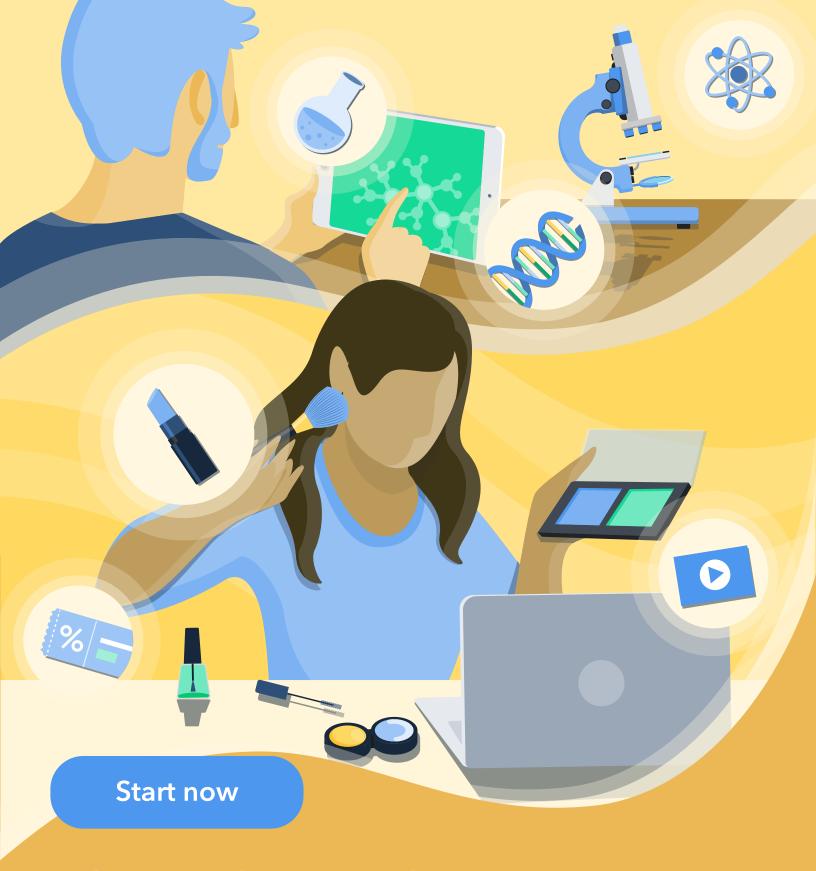
CharlotteTilbury



TRUNK CLUB







Talk to us today to learn how your business can benefit with Contentful