



Enactor
Headless:
The benefits
of headless
commerce



About Headless Commerce

Headless Commerce - What Does it Mean?

Headless Commerce is a term used to describe when the front-end presentation layers of applications, such as websites and Apps, are separate from the back-end and share a common set of services and data-structures, all managed via APIs.

The “headless” aspect, i.e. an application with no User Interface, simply means that there is no front-end that comes with the platform for customer interaction. The application acts as a common layer accessed via web service calls from disparate applications that rely on the application being at least part, if not all, of their back-end functionality.

Ultimately, headless commerce gives more flexibility and control over the customer facing experience back to the retailer.



Why is this Desirable?

Supporting multiple channels to market

Historically the most well-known web platforms in the market for larger retailers have had very tight coupling between the front-end and back-end. This has meant that they have been historically quite poor at supporting the enablement of new and varied channels to customer, even with the APIs that are available.

This rigidity has also meant that Retailers have not had the benefit of being able to experiment with new channels and customer journeys on their own. Despite the powerful capabilities within web technologies being relatively easy to access, retailers are still dependent on their supplier's monolithic web platforms in order to expedite process change.

Retailers ideally need to be able to control their own customer journey's, channels to market and to support new payment platforms that come into the market, such as Klarna. Agile, online-only, retailers can often react more quickly because of how their technical infrastructure technically developed as a single platform, unencumbered by monolithic store systems.

The rise in single page applications

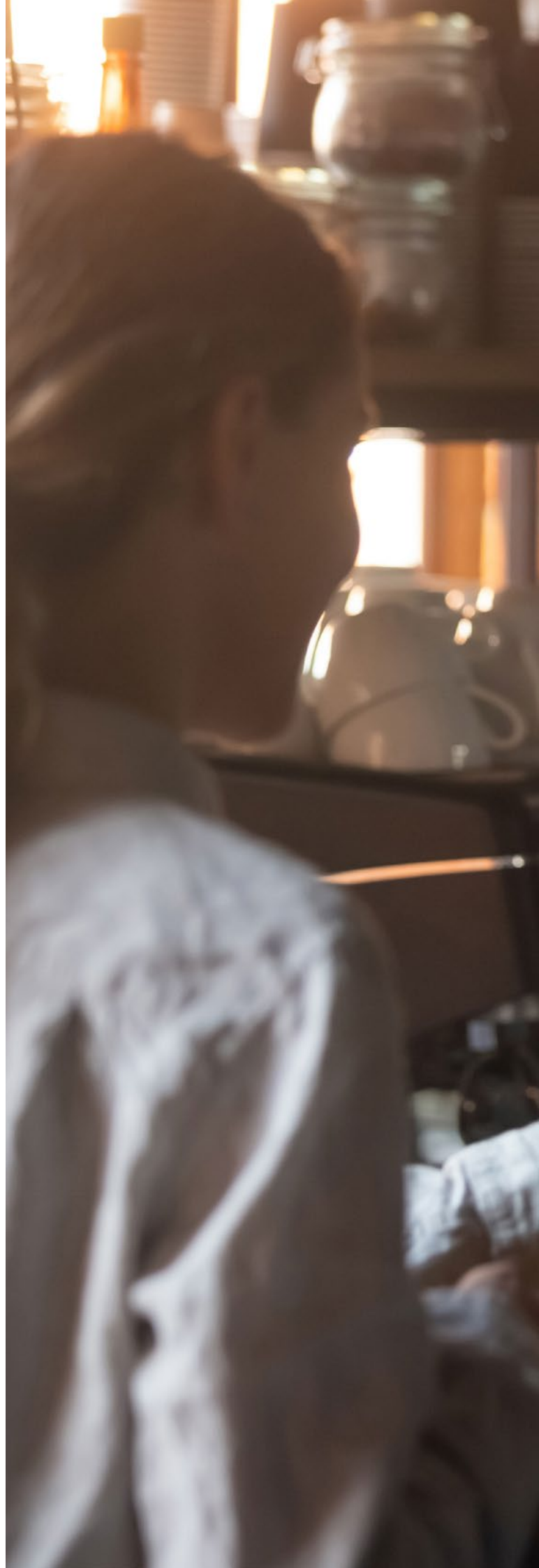
The desire for increased flexibility and ownership of the front-end is further compounded by the rise in single page applications. Most older style web platforms have come packaged with traditional Content Management Systems for delivering multipage sites. But with the rise of agile JavaScript Frameworks for web UIs there is a gradual shift away from CMS' and multipage frameworks altogether.

The result of this shift is a back-end accessible only through APIs, to better facilitate the "plumbing" aspect of e-commerce. Services for elements such as the basket, product, prices and imagery for example are now delivered via web service calls as opposed to the internal workings of a web platform. This drastically speeds up performance and offers unparalleled flexibility.

Headless Commerce - Enabling Unified Commerce

The Headless model enables the provision of a platform for exceptional unified commerce experiences. By having a common set of places and data-models to execute commerce functions across all channels, consistency via all channels is much easier to achieve.

In addition, with the front-end there is more control over, and focus on, the customer experience. With the focus shifted from selling to buying, the experience becomes about supporting how the customer wants to buy as a priority over and above how IT infrastructure allows the retailer to sell.





Experience is driving retail growth

While some high street retailers are struggling, others are very successfully demonstrating that done well, the brick and mortar presence is still significant, however the role of the physical store has most certainly changed.

The expensive real estate of the high street store still has a role to play in enhancing the customer experience, however in order to effectively achieve that, it has to be connected to everything else.

Why experience is important

When you consider that 98% of people switch between devices in the same day (Google Research) and consumers use an average of almost six touch-points with nearly 50% regularly using more than four during the purchase process¹, if information is not connected across these touchpoints it will cause frustration.

This is further borne out by the fact that 87% of customers think brands need to put more effort into providing a seamless experience², and companies with extremely strong Omnichannel customer engagement retain on average 89% of their customers, compared to 33% for companies with weak Omnichannel customer engagement³.

Retailers are struggling to meet these demands, as 61% of customers have not been able to easily switch from one channel to another when interacting with customer service⁴, and 55% of companies have no cross-channel strategy in place⁵. With 90% of customers expecting consistent interactions across channels⁶, when

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of customers stick with companies that have extremely strong Omnichannel customer engagement



these expectations are not met, it has serious consequences on their decision to buy.

According to Baymard Institute's cart abandonment statistics⁷, the top reasons for cart abandonment are closely linked to the user experience, such as long page load times, having to create an account and too complicated a checkout process.

Headless commerce leads to faster page load times as the site doesn't have to deal with data from the presentation layer, and smaller modules of information are passed via APIs and Microservices. This also leads to better personalisation, as each journey through the site can be easily tailored to the consumer's needs using small packets of information without disrupting other core system processes.

As user experiences are monitored, if an online process is creating a "blockage" between browsing and buying, it can be quickly and easily modified without impacting back end processes.

1. Marketing Week - <https://www.knexusgroup.com/show/blog/Five-Omnichannel-Statistics-You-Need-to-Know/>
2. Zendesk - <http://d16cvnquvjw7pr.cloudfront.net/resources/whitepapers/Omnichannel-Customer-Service-Gap.pdf>
3. Aberdeen Group - <https://www.internetretailer.com/2013/12/31/why-Omnichannel-strategy-matters>
4. Aspect - blogs.aspect.com/2014/01/29/infographic-omni-channel-service-doesnt-measure-up-customers-are-tired-of-playing-games/
5. The CMO Club - <https://www.cmocouncil.org/resources/facts>
6. SDL - <https://www.sdl.com/about/news-media/press/2014/90-percent-of-holiday-shoppers-expect-consistent-brand-experiences-across-channels-and-devices-according-to-sdl-survey.html>
7. Baymard - <https://baymard.com/lists/cart-abandonment-rate>



What improved experiences deliver

Companies with extremely strong Omnichannel customer engagement see a 9.5% year-over-year increase in annual revenue, compared to 3.4% for weak Omnichannel companies. Similarly, strong Omnichannel companies see a 7.5% year-over-year decrease in cost per contact, compared to a 0.2% year-over-year decrease for weak companies¹.

Doing this well helps to meet the expectations of consumers that expect in-store sales associates to be knowledgeable about online-only products. (45% of consumers according to Forrester²). 69% of consumers expect store associates to be armed with a mobile device — in order to perform simple and immediate tasks such as looking up product information and checking inventory.

Headless Commerce also facilitates flexibility around loyalty programmes, making it easier to tie together consumer purchases across multiple

channels and locations automatically. This is consistently shown to be important in increasing sales; 76 percent of women and 72 percent of men are likely to shop at a business that offers a loyalty program³, according to CrowdTwist, and 74% of customers are said to choose a store based on a strong loyalty or discount program⁴.

In addition, when you consider that 39% of Millennials don't join a loyalty program because they would have to pay some kind of fee and 34% of Millennials don't join a loyalty program because the enrolment process is too long, the easier you make it, the more likely people are to engage.

1. Aberdeen Group - <https://www.digitalcommerce360.com/internet-retailer/>
2. Forrester - <https://www.business2community.com/marketing/15-stats-explain-omni-channel-just-buzzword-0896737#3OAUbvFteRFXw7Yp.97>
3. Access - <https://blog.accessdevelopment.com/customer-loyalty-statistics-2016-edition>
4. Forbes - <https://www.forbes.com/sites/forbescommunicationscouncil/2018/03/23/what-loyalty-program-is-right-for-your-business/#68c5e3b542db>

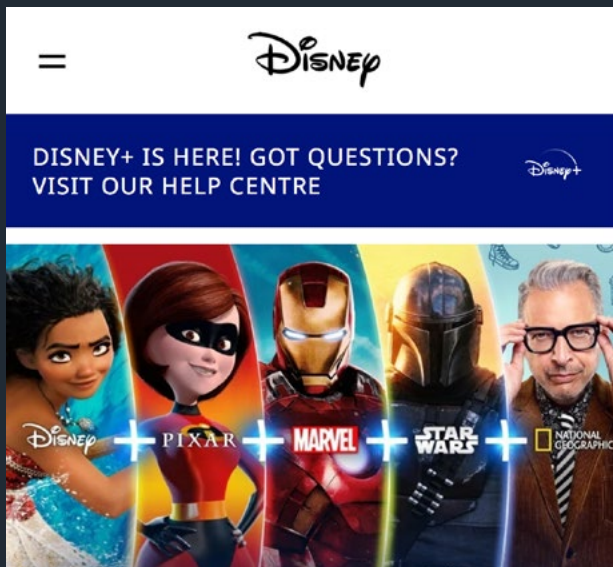
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Therefore, experience needs to come first

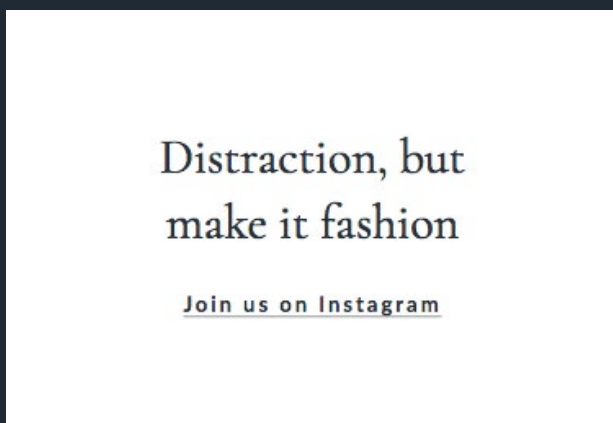
The retail dream is to allow consumers to engage with you any way they want, unrestricted by technology, however until now that's been challenging, particularly for larger retailers.

Some companies, both in and out of retail are setting the bar high for omni channel journeys, a good example is Disney.



Disney

As well as their beautifully responsive website, which performs well on any device, once you've booked your holiday you can access the My Disney Experience tool which leads you through your entire trip, from where you'll dine, when you'll collect your tickets and fast pass access. They also have a tool called The Magic Band programme which acts as a single storage for passes, meal reservations and food ordering, as well as photos with Disney characters and complete fast pass integration.



Dune

Dune is another retailer that performs omni channel extremely well. Using their stores as satellite warehouses, they not only provide the ultimate convenience for customers, but they also leverage their real estate investments. Customers can click and collect from any store, and home deliveries are also easily supported by the store network.

Steinhoff

Another UK retailer, Steinhoff (owner of Benson's and Harvey's) has given in store staff mobile devices that give up to the minute inventory and product information, and act as a full POS device. If an item is out of stock it can be ordered instantly on the device, and complex home furnishing orders are easily completed.



REI

In the US, REI has an excellent reputation for quality and high performance, and their customer experience is no different.

As we've already explored, the ability to move from one device to another is crucial for customers and REI offer up to date product information at every touchpoint.





However, you have to be able to move quickly & accurately

So what's holding everybody back? The answer typically lies in the lack of flexibility in the monolithic systems in place at most retailers. Headless Commerce, powered by Microservices, offers an option for retailers to avoid the lengthy upgrade cycles of technology by making it possible to upgrade and change individual Microservices as opposed to the entire stack. The architecture at its core easily facilitates changes and can be easily tested and deployed. What's important is that the architecture enables correct changes without the need for complex hard coding.

It's not enough to just have APIs that maintain lists of software entities, that in turn share many of the same names as Microservices, causing confusion for example around including lists of products, prices, orders etc.

Headless Commerce is very much about delivering genuine functionality to the business, crucial at this level when it comes to large scale, complex retail operations. After all, software is much more than just a database and UI. A good example of business value created with a rich, functional Microservices layer lies in the area of promotions.

Typical promotions engines can't keep up with requirements that change and flex depending on consumer behaviour. When a retailer has thousands of SKUs, and many more thousands of purchase combinations impacted by hundreds of product promotions, a strong configurability around the e-commerce layer is crucial. In practice this could mean that promotions are dynamically managed and assigned to a transaction in the front end, to provide the best possible price for the customer based on all the options available.

When the above is multiplied across thousands of transactions, it becomes clear why the functionality at the front end is more important than just simply "passing" lists of information between the front end and the back end via an API. If the latter were the case, the processing speed would slow to a crawl during business periods such as black Friday.



The right tooling

Microservices do provide flexibility, but they still require a layer of tooling in order to manipulate them in order to get the most from them. Groups of Microservices should themselves be made-up of smaller Microservices, connected together and managed by various tooling.

The ideal Headless Commerce solution should have thousands of Microservices because the framework should enforce a granular level of Microservice wrapping. Each Java class should be automatically wrapped as a Microservice so that it can be invoked either locally or remotely over a network.

The framework should then enforce that each Microservice defines its inputs, outputs and outcomes in invocation, all of them inherently re-useable and, on-creation, stored in a resource library.

All of this results in true agile-based business processes on the front end, delivering the right customer experience and no business request back log for IT to manage. There's no duplication of effort required to produce this agility.

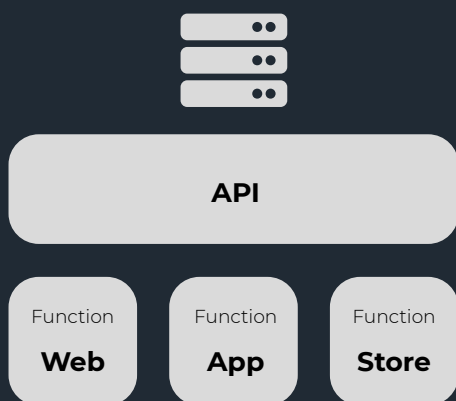




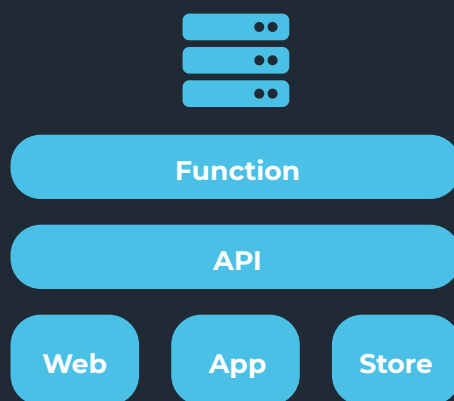
About Enactor

Enactor provides a true functionality via APIs not JUST a database. This prevents duplication of development in the front-end layers, and a common interface for common functionality.

Boring/Limited Microservice



Enactor Microservice



Microservices aren't enough. Enactor provides tools for building Microservices and the functionality within. The functionality behind our services is truly flexible to change and amend for an enterprise retailer. Micro services should not be black boxes.



For more information on the technical aspect of Microservices, please download our technical document or get in touch:

<https://www.enactor.co/category/resources/>
+44 (0)1992 661315