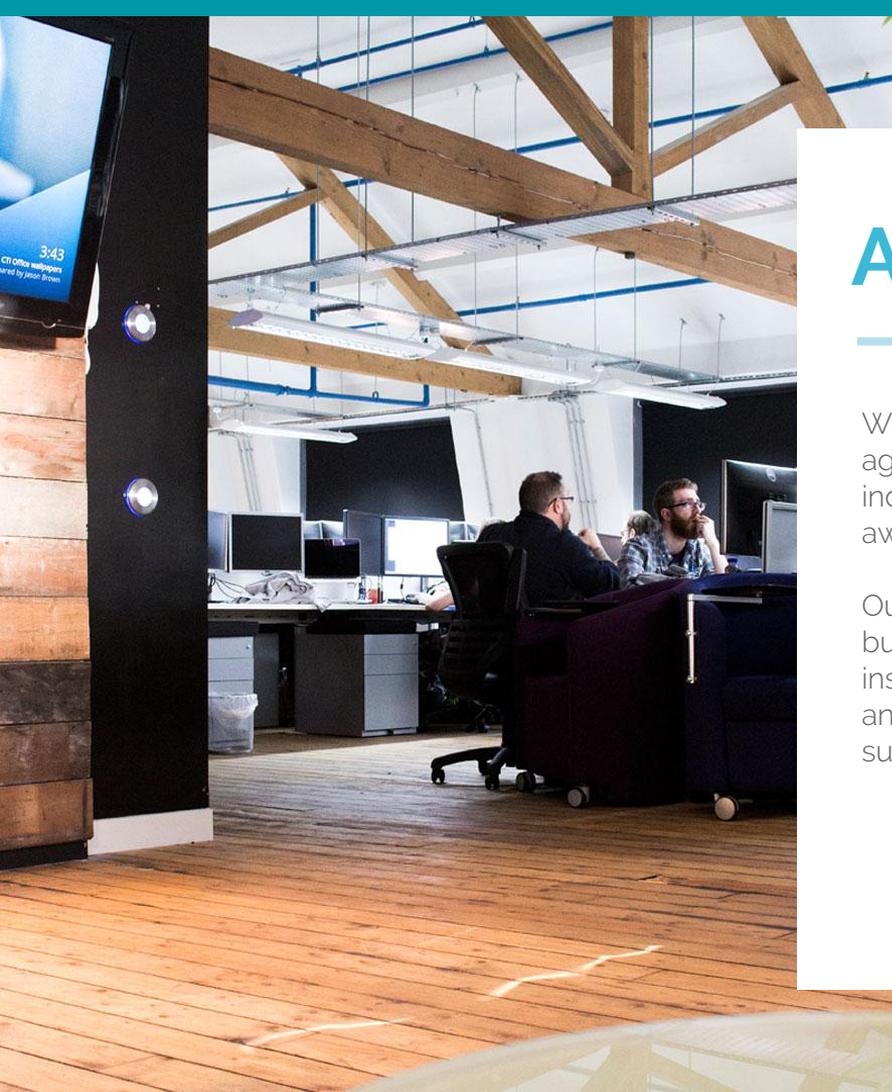




# The Landscape of E-Commerce

Ian Cassidy, E-Commerce Director



## A bit about us

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We are CTI Digital, one of the UK's leading full service digital agencies, with a growing team of over 70 talented and creative individuals. We've got over 15 years of experience in providing award-winning, innovative solutions.

Our mission is to help you achieve incredible results for your business by taking a user-centred approach to your project. This insights booklet aims to let you achieve results here and now, and remember, if you ever happen to need more long term support, we're always ready at the other end of a phone call.

# E-Commerce in 2018

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# Introduction

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E-Commerce is an ever-changing landscape, so it can be easy to be left behind. But despite its harsh nature, the industry is booming. We've seen a rapid increase in e-commerce specific events around the UK, like E-Commerce Show North and Supercharged Commerce, so retailers are clearly hungry to grow their retail tool kit. The fact that you've even downloaded this e-book is also a perfect example.

In 2017 a total value of \$2.4 trillion sales were made on the global online marketplace. But it doesn't stop there. By 2021 online retail sales are set to reach...

**\$4.5 trillion**

This booming online economy is the response to e-commerce growing in countries of all levels of economic status.

Mobile and smart payment methods have broken down the barriers to entry for retailers in areas of poor economic growth. This is so prevalent that Google are restructuring their index to favour mobile-friendly websites in support of these growing markets.

With growing markets also comes a wider customer base, and, as such, it becomes harder to brand in a way that everyone will like. But there is a solution to this that we'll discuss later. First, however, let's find out which countries are paving the way for e-commerce.



The Future Leaders of E-Commerce

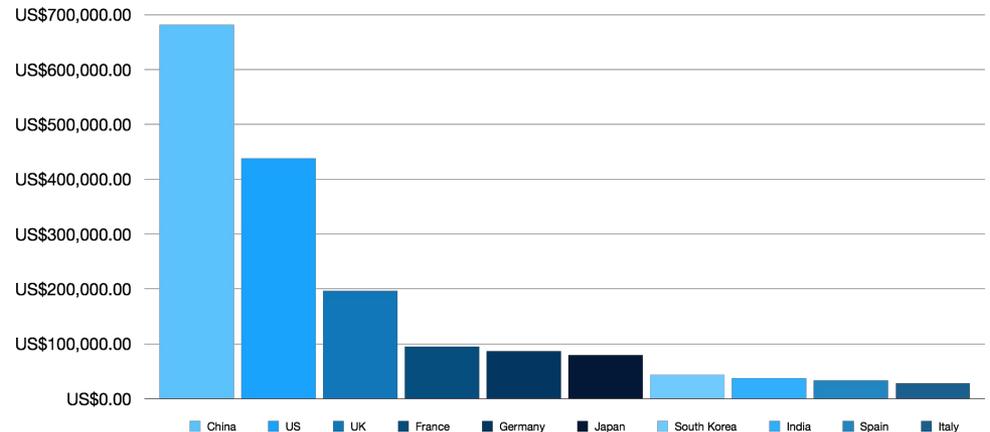
# The Top 10 global leaders in B2C commerce

China still paves the way as the e-commerce leader, with over \$681 million turnover, beating the US, who took in \$438 million, by 35%. The three European giants, the UK, France, and Germany, also maintain their positions as e-commerce leaders.

The substantial e-commerce growth in Japan and South Korea has won them a significant market share. The increase in exports and rising purchasing power of native millennials provides a marketplace open to new and old retailers that must not be dismissed by western brands.

But, as impressive as the growth that has been achieved by Japan and South Korea is, they certainly aren't the only growing markets.

B2C ecommerce turnover, in millions of USD, by country; 2017



Source: Ecommerce Foundation, 2017

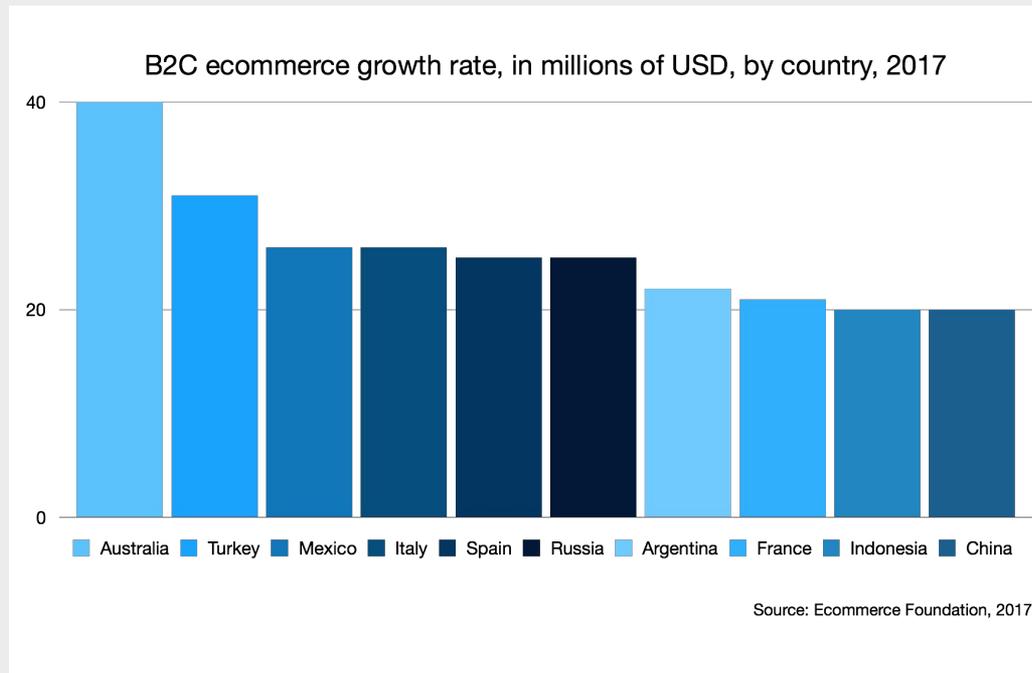
# The Top 10 countries by B2C commerce growth rate

As you must with everything in business, it's important to take a look at the landscape from multiple angles. When growth rates are compared a drastically different picture is painted, with economic giant the USA not even ranking.

Australia grew by 40% in 2017. If this trend continues, it's likely they will hit the top 10 turnover, just as Italy has with a 26% increase last year.

Comparatively, China, despite already being the largest country in the world for online revenue, is still growing, but at only 20%.

What does this all mean? As you can see there is opportunity within new and existing territories, an important factor to consider in your expansion plans.



# So what's the bad news?

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You caught us, it can't all be good news. Before we reach 2021 there are a few obstacles down the road, especially for the UK.



GDPR

# The General Data Protection Regulation

The General Data Protection Regulation comes into force on the 25th May 2018 and will apply to all EU member states. Non-compliance with GDPR risks a fine of 4% of global turnover or 20m euros, whichever is higher. Here are the main areas to address to ensure you are compliant with GDPR:

## Seek Consent

To use someone's data, they must opt-in and know specifically what their data will be used for

## Subject Access Requests

Users can request all of the personal data you hold about them

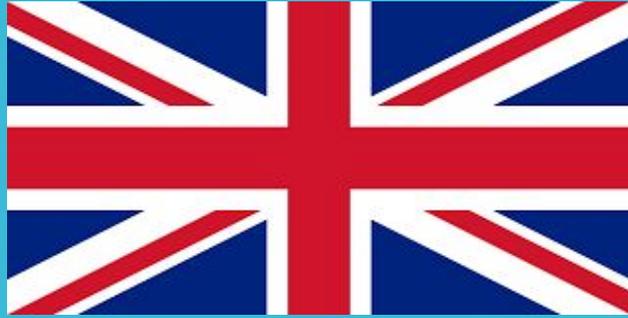
## The Right to be Forgotten

Users can choose to obfuscate their data, so they are anonymised in your systems

## Mandatory Breaches Report

If data security breaches are made they must be reported to the ICO within 72 hrs

Learn more about GDPR on the information Commissioner's website  
[ico.org.uk](https://ico.org.uk)



Brexit

# Brexit

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A recent report, produced by Business Insider, showed that the UK accounted for 33% of all EU online sales in 2016; so the future appears to be bright.

However, Brexit can affect the following, which may damage sales volumes:

- The cost of importing and exporting goods
- VAT and import duties
- The speed of delivery, due to introducing border checks which disrupt the supply chain.

These changes are relatively out of retailers' hands, but we urge you to keep a close eye on changes to legislation. Educate your team and be in a position, and on a platform, where you can react quickly to get ahead of the game.



source:

<https://www.wsj.com/articles/u-k-european-union-reach-deal-on-brexit-divorce-terms-1512716442>

# Opportunities in Tech

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With change comes new opportunities. AI and Machine Learning will be huge additions to e-commerce over the next few years.

# Artificial Intelligence

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AI is essentially computers performing tasks that were once reserved for humans, as they required a human intelligence. Activities such as speech recognition, learning, complex decision making, and translating languages are all now possible for machines.

Artificial Intelligence may be a new phrase, but the founding ideology is much older than we may think. On the next page you'll see a brief timeline of the birth of Artificial Intelligence and Machine Learning.

## **Artificial Intelligence (AI)**

The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.

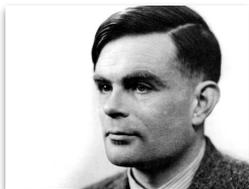
# The Birth of AI

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1947

Alan Turing spoke to the London Mathematical Society proclaiming

*"what we need is a machine that can learn from experience"*



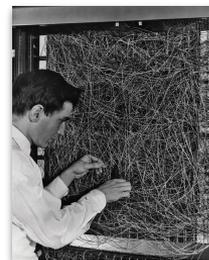
1956

John McCarthy coined the term "Artificial Intelligence" at the Dartmouth Conference, whilst exploring ways to make a machine capable of problem-solving and self-improvement.



1957

Frank Rosenblatt, an American psychologist, designed the first neural network for computers, giving rise to machine learning.



# AI and ML in the mainstream

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As we can see, Machine Learning and Artificial Intelligence have been around for a long time; but only recently has technology developed far enough to make these tools affordable.

In May 1997 an IBM supercomputer, known as 'Deep Blue', took on the Chess Champion Gary Kasparov, who had once bragged that he would never lose to a machine (so you can guess where this story is going).

Gary lost the match and subsequently went on to blame the defeat on a single move made by the IBM machine. He said "the computer made a sacrifice that seemed to hint at its long-term strategy and I thought this was too complex of a move for the machine to make". The press went on to wax lyrical about the super intelligence displayed by the 'Deep Blue' system and the future capabilities of AI.

However, it wasn't until many years later, when 'Deep Blue's' developers investigated the event, that they found out the killer move executed by the IBM machine was in fact an error. The IBM machine was unable to calculate a move to combat Gary, so simply picked one at random, before finding itself back on track.

So there you have it: even machines are capable of a lucky fluke.

## Machine Learning (ML)

Machine learning is an application of artificial intelligence (AI) that provides systems with the ability to automatically learn and improve from experience without being explicitly programmed. Machine learning focuses on the development of computer programs that can access data and use it to learn for themselves.

How are retailers using AI?

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# Netflix

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For many years, the main goal of Netflix's personalised recommendation system has been to sift through over 10,000 titles and over one hundred million accounts, so as to place the right titles in front of each of its members, at the right time.

Recommending the titles that are right for each user is crucial. Their success relies on piquing your interest, with new titles based on a machine learning algorithm. It's a common experience for users now.

You watch a gritty crime drama like 'Narcos', then other gritty dramas are recommended, like 'Sons of Anarchy' or 'Breaking Bad'. But Netflix's personalisation goes much deeper than this.

# NETFLIX

# Netflix Artwork Personalisation - Genre

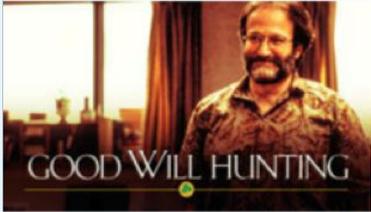
Netflix leverages something which it calls 'Artwork Personalisation', which adapts artwork for each user, based on previous actions.

In this example, Netflix will consider artwork based on learning and matching algorithms to recommend 'Good Will Hunting'. Lucy has watched many romantic movies, so she is shown a kissing scene from the film. Whereas Sarah enjoys comedies and is shown a cover of the much loved comedian Robin Williams. Thus, Netflix demonstrates learning and personalisation based on past actions.

Lucy *Lucy*



Sarah *Sarah*



# Netflix Artwork Personalisation - Actors

Netflix can also do this based on actors. In this example for 'Pulp Fiction', Lucy has been watching Uma Thurman films, so she sees artwork featuring Uma Thurman. Meanwhile, Sarah has been watching John Travolta films and, predictably, is shown John Travolta in the artwork.

These models are constantly being refined. Brands like Amazon also use this machine learning to suggest items based on intent, providing a more personalised experience than any manual merchandising system could be capable of.

Lucy



=



Sarah



=



## In Conclusion

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The e-commerce landscape isn't changing as rapidly as you might think. A lot of the 'new' ideas are actually the entry of long awaited technologies into the mainstream market. So it's important not to dismiss new ideas when they come about.

AI is the new driver of user interfaces and is about to get a lot bigger. AI is already being used today to prioritise search results, deliver personalised recommendations, and optimise the send time of your email campaigns.

There are countless software providers available out there, so do your research and find the best tool for your business. AI can help every type of market connect with its customers better than ever before, so don't miss out.



# More Information

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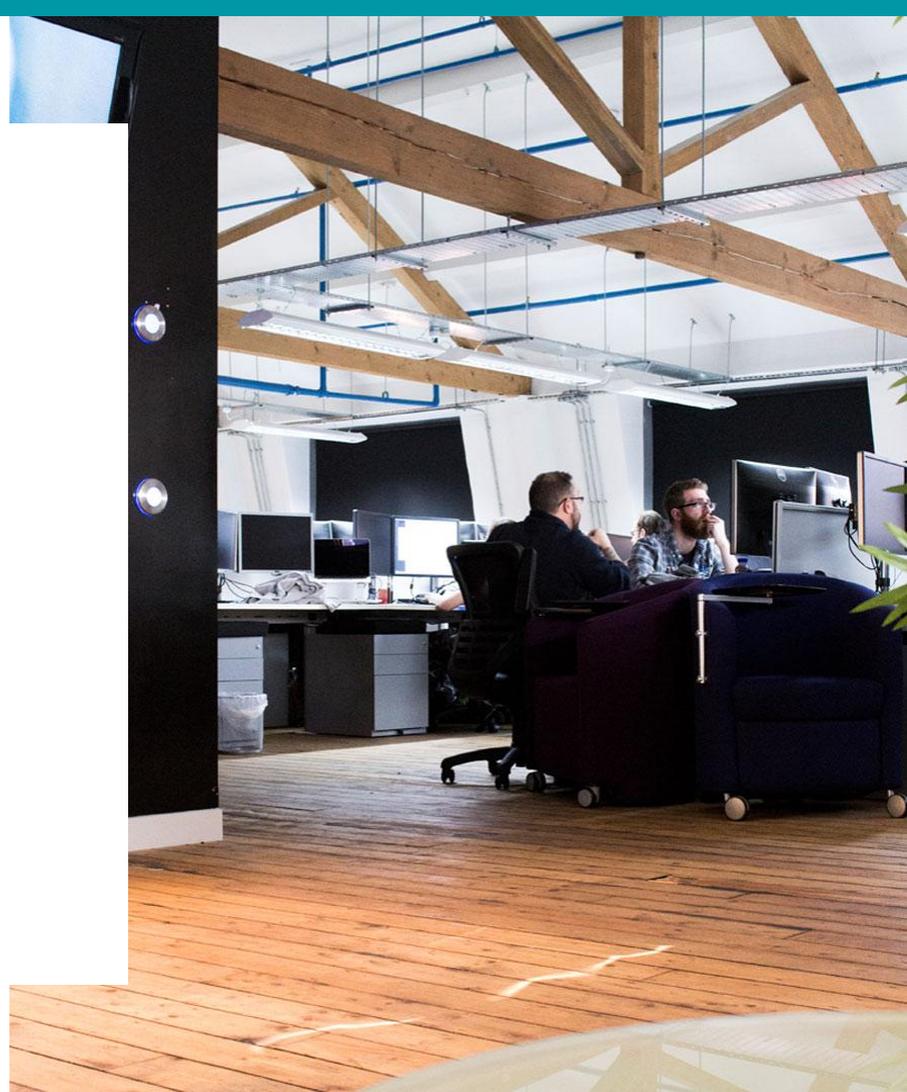
If you want to jumpstart your e-commerce store into 2021, why not drop us a line? Our dedicated e-commerce team is always on hand to help.

## **The E-Commerce Experts**

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UX  
Support Services

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