IT RECRUITER TECHNOLOGY BRIEFING FOR 2017

Technologies to keep an eye on in 2017, digested and demystified for recruitment agencies and HR.

By

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A brief overview of technologies to keep an eye on in 2017, digested and demystified for recruitment.

INTRODUCTION

Okay, the dreaded first week is out of the way. The crisp white lights of the office don't seem as harsh anymore as you settle back at your desk. Christmas is a lingering memory and Easter eggs have been spotted pushing up against the last of the mince pies in the supermarkets. Firstly, let me wish you a happy, healthy and prosperous New Year. Secondly, let me remind you. It's that time again!

Time for managers, consultants and resourcers everywhere to regroup and rethink what they might need to focus on for the coming year in terms of what is going to be hot as an IT skillset. This report is designed to highlight in clear, lay terms some of the technologies that are on the rise. In clear non-technical terms. It is designed for the consumption of people within HR and IT recruitment who interact with technology experts during their working day, and who frankly, just need to look good (read 'credible').

As always a myriad of new acronyms and wannabe concepts have hit the landscape in 2016, and as always from a recruitment perspective, the target has been furiously darting around like a blue-bottle on Mephedrone. But, like never before, IT has become increasingly more the focus of attention for so many vital sectors both at the enterprise and a consumer level. So much so that we now have fairly clear consensus amongst all of the experts on the technologies and trends that are going to shape 2017.

For your convenience, I've split this briefing into two sections. What the consultancies think, and what is really being experienced by recruiters on the ground. Let's go!

So let's get cracking!

SECTION 1 :

WHAT THE CONSULTANCIES ARE SAYING

(or – how to wow the IT big wigs in conversation)

These are technology terms that are shaping the lexicon within the likes of Gartner, Forrester and Accenture when they describe forthcoming trends and forecasts. This section reflects their consensus view about the new leading techs to watch out for, and of course these are very useful terms to bring into conversation with the senior IT crowd. These are also technologies that are being touted as the new kids on the block and are the potential paradigm changers. Concepts which absolutely must be known by anyone interacting with IT personnel at a strategic level. The fact that you seem to even be aware of the stuff mentioned in this section, will astonish and amaze, and can be devastating in in the right situation.

SECTION 2:

THE REALITY AT THE COAL FACE

(Still the stuff that is important on CVs and Job Specs right here and now)

This a snapshot of notable entrants and exits from the technology 'pop charts' as experienced at the candidate and role level. These are the technologies which may not be listed on the consultancy hype cycles as being leading edge, but from a recruitment perspective they are on the rise and in real demand at the CV and recruitment level.

I have listed these within the key verticals of

- Languages
- Infrastructure
- Database and BI
- Web Development
- Approaches and Methods

SECTION 1:
THE CONSULTANT'S VIEW: TECHNOLOGIES TO KEEP AN EYE ON IN 2017

The consensus amongst all of the big consultancies is that the following technology areas are ones which will surge. Simply put, if you're having face-to-face meetings with IT Managers and CIOs, throw this stuff into the mix, it's sheer catnip! In simple terms the list of winners goes like this:

1)   **Internet of Things (IoT)**
2)   **Device Mesh**
3)   **Information of Everything**
4)   **Cloud Security**
5)   **Smart Wearables**
6)   **Microservices and Containerization**
7)   **Blockchain**
8)   **Machine Learning and AI**

Here's a quick primer on all of the above:

1)   Internet of Things (IoT)

This is going to be huge! Samsung, Apple, Microsoft et al are already bringing this into their mainstream literature and it's something you will need to become very comfortable with, both as a recruiter… *and as a human being!* Internet capability is going through the roof in terms of bandwidth and speed, as we all know. Not only that, but the sheer availability and uptime is breath-taking too (I am writing this on the flight back to England from a training event in Madrid at 30,000 feet. I'm dipping in and out of Google and Wiki seamlessly, and the kid next to me is Tango-ing his Grandma from the plane!) So the Internet is almost as necessary a commodity as electricity for the next generation. I see this in my attendees as they clamber for the plug socket as soon as they enter a training room, with charger in one hand and smartphone in the other - lest they sever that vital umbilical cord to the outside world.

The question now becomes 'Is this the point where the Internet becomes as important a medium as electricity?' The answer apparently is *yes*.

Enter the **Internet of Things (IoT).** The idea that the Internet will now provide a platform through which we can connect and control every electronic item in our lives via the web and thus make it an accessible part of our online universe.

We are talking fridges, washing machines, kettles, toasters, heating controls and cars. If it has a microchip in it, it can feasibly become Internet-ready and thus a part of our IoT domain. Hell, even if it doesn't traditionally have a chip in it, we can have a go at making it Internet ready. A teacup, a chair, a mattress, a sofa. These are every bit as worthy a contender as a heating thermostat to enter our IoT network. Why? Because IoT doesn't set out to solve problems per se. IoT connects devices that will steadily pump out continuous streams of data about you and me. Data about our lives and who we are.

Not only who we are, *but who we are about to become*. Imagine the potential of that sort of data for insurance companies and retailers. Furthermore, this data will give us ideas as to the seemingly unrelated problems that can be addressed in lateral ways. Seemingly benign data will be churned and processed into nascent information and useful wisdom at the hands of Data Scientists. Yes, there is intense value in a fridge that can pre-empt our eating habits, compile our shopping list and send out a ping to Tesco. But there is just as much value in an IoT office chair that can feed back how long we have been sitting in one position, or assess our general posture status over a period of time. Or even a tea cup that can keep a track of the amount of sugar we are pouring into our bodies on a daily basis.

Everything is about to get web-ready.

We've just witnessed the year of disruptive sentiment with Brexit and Trump. Well these next few are the years of disruptive technology.

2) Device Mesh

This trend is closely linked to the Internet of Things, and is a term coined by the Gartner consultants as referring to that **network whereby we can access the Internet from things other than our computers**. So it started with tablets and laptops, but we will become equally happy with using our fridge door to order stuff over the Internet. This will mean the rise of web technologies that will be far more attuned to the changing nature of the device and thereby the UX (User Experience) and GUI (Graphical User Interface). Which in turn will mean the rise of the Web developers with advanced Scripting skills such as Node.JS (see below).

3) Information of Everything

Yeah, you know where this is going. The data that is spewed out from 6.4 billion devices on the device mesh needs its own name. Data Analysts and Data Scientists are the new rock stars. See below.

4) Cloud Security

Cloud security isn't a new term nor a new headache. But please don't think of this as 'same-old, same-old'. The game has changed so rapidly. For the first time ever, in October 2016 we had a massive DDOS (Distributed Denial of Service) that brought down servers within the likes of Twitter, Paypal, Tumblr and Spotify. The unusual aspect of this attack was that the main attack vector used was a 'botnet-zombie' approach, which effectively utilized elements that are on the Internet of Things network. So these hackers tapped into a particular make of CCTV camera and the like, to then mount a massive ping attack on the key machines at these organisations. The upshot is that Cloud security in future is going to be less about trying to break into a network through traditional means, the

router, or client PCs - and more about finding the weakest IoT device on the network. So with this in mind, recently a famous celebrity's home network was compromised. **The entry point being the wi-fi enabled baby cam in their child's nursery.** Cloud security experts will need to upskill *asap* because a new era of hacker attack is coming. Certified Ethical Hackers will gain a new level of respect. Oh, also you need to watch Mr. Robot on Netflix if you're into this area!

Driverless Cars, Drones and Till-less Supermarkets

Just as an aside, but linked to security. 2017 will also be the year when it will dawn on us that Google, Uber, and Tesla *et al* were deadly serious when it comes to a vision of the future where the driver disappears from the equation altogether. Google may or may not pursue their own driverless vehicle, but much like with Android, Google will want to become the provider and controller of the

software platform that other manufacturers will use on their driver-less vehicles.

Companies like Uber will monopolise on the technology far more than car manufacturers simply because it plays into their business formula so seamlessly. At the time of writing Uber has already set up a driverless service in San Francisco, where if you hail an UberX car you will be greeted by a driverless Volvo (currently it comes with a human behind the wheel during the trial period, but these are to all extents an adornment, an observer and a superfluous actor in the story!)

Amazon Drones, and the Checkout-free store

2017 is when Amazon drones will start appearing above the Cambridge skyline, delivering parcels to locals, and bringing the completed order to the door in as little as 30 minutes from pressing the 'Buy Now' button.

Orwellian nightmare or Utopian paradise, you decide.

5) Smart Wearables

All of the forecasters seem pretty confident that we will eventually overcome our shyness, and in the end succumb to the idea of wearables. Not only as nice-to-haves, but as the key personal IT architecture to our lives. Most analysts believe that by 2020 our main piece of personal tech will not be a smartphone but something stylish that is perched on our nose. Our GPs will tap into data collected by our watches and vests, and 3D movies will become an experience that follows us around rather than something we go to a cinema to view.
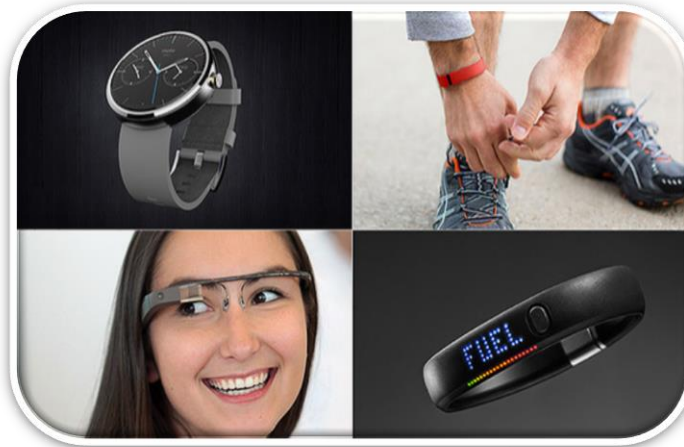
6) Microservices/ Containerization

Microservices is an innovative approach to building software applications. It's not altogether a completely new concept, but it builds on and popularizes earlier methods.

Microservices

The main premise is that rather than building one giant monolithic piece of code (the application) for a particular purpose, you should create a culture whereby disparate teams focus on creating small pieces of code that carry out a tiny sub-functions very well. 'Containers' are the small pieces of mini-applications that can be deployed across the network and even to make up a piece of different applications at different times.

Why is this important?

Well, this is very similar to the previous SOA (Service Oriented Architecture), but arguably builds in a greater level of granularity and sophistication.

> *The beauty is that these little microservices and containers can operate without having to worry about the underlying operating system or platform and therefore can float around a very complex IT architecture carrying out their processes.*

Mergers between two companies (and therefore two different IT systems) are less hindered by the technical elements of the project. So imagine an organization's IT architecture. Where previously large clunky applications resided as large single-purpose software. These software were always rigid in terms of evolution and tightly defined in scope. They were made to work specifically on one corporate function, and made for Windows or Unix (let's say).

Subsequently, the tiniest changes to the IT landscape would mean that they could effectively become obsolete or, at best, lose functionality. Also, new functionality would mean re-programming the whole system (or asking the vendor to create an upgrade) and then effectively testing the complete package again as an entirely new product. This is costly, time-consuming and cumbersome. With the microservices approach, the **containers** are the self-contained mini applications which are thoroughly tested and designed to work cross-platform and with each other. Applications can be designed and built on the basis of the functionality needed. This creates a culture where development is much more in line with the increasingly popular Agile approach. New functionality within an application becomes just a matter of breaking up an old one and adding new 'cogs' rather than starting a project lifecycle from scratch.

> *Docker, Kubernetes, and Jenkins are great skillsets for this area.*

7) Blockchain.

Another trend is the rise of Blockchain. Let's face it. In this age of amazing advancement, it's hard for anything to stand out, let alone be universally touted as an honest-to-God bona fide revolution in technology. A true paradigm change. But Blockchain may actually be one, even though it currently resides in the 'trough of disillusionment' from an adoption perspective. It has everything to do with the way funds are going to be transacted and monitored in the online realm. **Sidechains, digital tracking, bitcoin** and **crypto-currency, smart assets, open source banking** and **Quantum Money** are all terms that will come into the mix and stand shoulder-to-shoulder with this technology. I'm not going to delve into those right here, but I will clarify the basics.

So, what is Blockchain? Firstly, I'll warn you now. It's going to get weird.

This is SO tricky to describe, so I shall do it through song. Sorry... through an analogy.

Imagine you are about to borrow some money from a friend. You might meet up in some high-street café. Situations and predicaments are explained by one desperate party to the other. Kind words of consolation are given by the other said party, and an agreement is made. The handshake is effectively a contract of intent by both parties. It indicates that both of you understand the terms of the lending and the repayment schedule. This is effectively the same transaction that happens online, between you and paypal or you and a lender. The problem here is that should either of you falter during any period within the transaction, there are only two parties involved – *the two parties involved*.

The resulting arguments and legal battles are dealt with through institutions, lawyers, and on the evidence put forward by the two parties. The most powerful argument (or party) will win.

Now think ***Blockchain.***

Imagine a different scenario. Imagine that *everyone* in the aforementioned coffee shop – nay, the entire high-street - was now asked, momentarily, to stop and **bear witness to this agreement** and to the exact time of the deal. They would all halt what they were doing, take a quick note and then go about their business again, after texting you their phone number. So should there be a problem at any point in the future, both parties could invoke the entire network of witnesses and the truth would become self-evident very quickly. Now think of numerous similar agreements happening around the high-street and that **you** are also asked to act as a witness to **their** transactions.
It would be a case where legal parties and financial institutions would not even be needed to oversee transactions anymore. There would be no cumbersome processing. This would cut costs, increase efficiency and reducing friction in the world's banking system.

Blockchain - A system of distributed databases, application entities and server systems that all form a part of an overarching network of witness-bearing machines that hold the evidence to trillions of transactions between parties on every platform, from Ebay to Amazon.

No one can claim an agreement wasn't understood or was unclear. The network will come forward and vouch.

The industry grapevine is going mad about Blockchain. Us mere mortals (recruiters) need to sit tight, watch this space, and be ready for the boom when (and if) it happens.

8)   Machine Learning and AI

Yes. It had to happen. The idea that we, as humans, are no longer the single entity capable of sentience, intelligence and rational, computational thought. It looks the machines have arrived. This is a huge and fascinating topic, but I'm just going to pay it homage by mentioning that you may well see this stuff on CVs very soon.

What is Machine Learning?

Machine learning relies on collecting vast amounts of data and data sets through repetition and recording, and then allows the machine to absorb and 'learn from' the data. Thus defining what is 'right' and 'wrong', and letting it make decisions and recommendations based on that historical knowledge.

Google's Self-driving car is a poster child of machine learning, but go and have a quick look at **IBM's Watson** machine on Youtube.

Search 'Watson and Jeopardy'. And it should make you shudder just a little. Here is a machine that is surpassing all of our ideas of Artificial Intelligence. From beating doctors when it comes to diagnosing illnesses to beating financial market traders at their own game.

COMING UP: AT THE COAL FACE

Many of the technologies and concepts mentioned in Section 1 above are already entering the realm of recruitment today and appearing on CVs. But it's also worth keeping an eye on all the staples. The Movers and Shakers across the board in the areas of Languages, Infrastructure, Data, Web and Approaches… coming up next.

> It is the semi-automated extraction of knowledge from data

> The 'semi-automated' implies that you are relying on a computer/machine to do much of the extraction/digestion of data without your complete involvement

> You are already using it. Think autocorrect when you type, a firewall that has started to learn what is good and bad, a junk box that has started to understand what is legitimate email or not.

SECTION 2: AT THE COAL FACE. What's happening on the ground?

Popular Software Languages in 2017

Firstly. Before we explore which languages are on the rise. How are software languages measured on their popularity?

Good to know for recruiters

There is always some dispute in how you define the most popular languages, depending on how you interpret the analysis vectors used by various companies. The 'go to' trend analysts for languages are the likes of **TIOBE index** (who rank according to the number of skilled programmers worldwide and search engine results), **Glassdoor** (who rank in terms of popularity of jobs in demand) and **GitHub** (who rank in terms of usage and flow of code in their public and private repositories). So I am taking a cross-section of opinion to define some of the notables at the top and bottom of the charts.

Let's look at some of the most popular languages

JavaScript

The rise and rise of scripting continues , because of the increase in highly active **SPA** (web pages that are **Single page Applications**). This is also primarily to do with the growth of libraries such as **NodeJS, Kendo** and **Angular**, which is a revolution in the way scripting is now done. This along with **CSS** frameworks will create a new generation of rock stars. JavaScript developers are starting to earn on par with hot mainstream software engineers.

Java

The solid performance of this platform independent language keeps it at the top of

the charts where it has been for years. Also the meteoric rise of the Android platform means that this language is not going to lose popularity anytime soon.

Python, Ruby and PHP

Flexible, fast and furious. These languages are firm favourites because of their success in both the scripting and business logic development environments. Sometimes you just need to construct code quickly, and these languages cut out much of the complexity of traditional languages such as C++ and Java, but still get the job done.

SQL

In all of its guises (PL/SQL, TSQL etc.) SQL is still in demand around the world, as the ubiquitous Structured Querying Language. We have gone data mad and this is the workhorse for the traditional database

industry. It should be noted that SQL may well give way in the long-term future to more sophisticated methods, driven by the Data Analytics revolution.

Aside: Be mindful that the advanced tools for searching within the data analytics industry with OLAP (Online Analytical Processing) then become **MDX** and **DAX**. SQL is not good enough here.

SWIFT

Out with Objective C and in with SWIFT as the language for iOS app development. With Apple's endorsement of this home-grown language there is no doubt that this will carry on rising up the charts.

Languages to Keep an Eye on

R

Developed by two scientists called Ross and Robert, this is THE language **for statistical analysis**, written by statisticians for the area of data analysis, modelling and statistical graphics. This is the posterchild for Data Scientists and Data Analysts everywhere. So if you're recruiting in the world of Big Data, Business Intelligence and Predictive Analytics, then this is the rising star.

PS. **'Python with Pandas'** is also a massive skillset for those in Data Analytics.

And finally…

Not Cool Anymore But Not to be Forgotten

C and C++

Just because they aren't perceived as the trendy new kids on the block, it doesn't mean that these are now extinct. These languages ran the planet for decades and some areas of IT still can only really function with these workhorses at the center. Real-time embedded development still is mad for C. And if I've read the tea leaves correctly, *aren't IoT and Device Mesh devices all about tiny real-time technologies flourishing around us?*

Plenty of developers may well be dusting off their 'C for Dummies' manuals again.

Let's take a look at how other areas within IT are changing for 2017.

Hardware and Infrastructure in 2017

I'm almost tempted to say 'Infrastructure is the new black!' Where previously language evolution was always the area that mesmerised, and hardware lagged behind. Nowadays it's the eye-watering pace of hardware evolution that has dictated the pace of evolution of apps and development. Think about the focus on app development for the myriad of hand-held devices.

On the whole however, this is fairly simple.

The Dawn of Device Mesh Hardware

This has everything to do with the Universe of devices mentioned above in the areas of IoT. So this includes the plethora of smartphones from Android to iOS devices, and everything in between. One surprise entry that I do want to highlight in the world of hardware however is (and I never thought I would say this!)... *Microsoft*. Keep an eye on Microsoft in the hardware space. They have just unveiled their latest set of devices for the consumer, and without a doubt, it is a thing of sheer beauty!

At last Microsoft seem to be leading the way in terms of innovation. Their focus is on 3D, and the graphics industry, hitting Apple at their core (*sorry*) and I really think that this time they may be on to something.

Cloud : The Disappearing Hardware

Virtualization is the game in hardware now (think: I know it's there, but I don't know where!). **IaaS (Infrastructure as a Service)** and **PaaS (Platform as a Service)** is on the rise. Renting is the new owning. People don't want to go through all the hassle and expense of buying and maintaining a server which may well become outdated very quickly. Why the rise of Cloud based hardware? Simple. Here's a 30 second primer on the benefits of letting go:

1) Virtualization separates computing functions from the physical hardware.

2) Cloud virtualization diverts all software and hardware responsibility to a 3rd party.

3) By removing hardware IT functions, capital costs are almost eliminated.

4) The remaining costs are transferred to an operating expense which are on-demand or subscription based.

'Figure: Totally unnecessary and gratuitous image of ethereal floating servers for whenever Cloud is mentioned'

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Database and BI technology in 2017

(Erm, it's Big Data, stupid!)

This is a notion (Big Data) that is propelling itself into every aspect of our lives whether we like it or not. Just as our family car today is so far removed from the oily spluttering beasts of the past, so today's data technology has morphed itself into an unrecognizable dark art when compared to the database products of just a decade ago. We could kind of figure out what the old car engines did, things were simple and made sense. Today we don't even reach for the lever to pop the bonnet anymore! In the same way, today's data industry is dominated by machine learning, AI, Mathematics PhDs and supercomputers. The wizards work their magic with Big Data, peering into the vast oceans of data, filtering out the noise and

extracting Business Intelligence, the hidden patterns. They reveal the habits, likes and dislikes of each and every one of us. The tools and techniques are now so esoteric, that they are way beyond the comprehension of most. And yet they are increasingly in demand.

Big Data. What is it?

Big data is data that exceeds the processing capability of conventional database systems such as Oracle or IBMs DB2.

Because this is still a new and nebulous area for a lot of recruiters, I thought I might take a little time here to take some material from my Business Intelligence course and outline the skillsets which are associated with them.

So for all of your recruiters who are frightened to death of Big Data, BI and its associated technologies, here's a quick primer on this huge skillset.

Fact: **As a planet, the amount of data we used to generate in an entire year in 1999, today we generate every 60 seconds.**

Business Intelligence. What is it?

- It takes a vast set of messy raw data and reorganizes into a form that allows us to extract meaningful information from it.
- It helps you analyze the past, and with the use of tools allows you to adopt strategies to take on the future.
- BI results in an organisation that can become more productive and competitive as it goes forward.

Big Data deals with data that has the *3Vs.* Data at a **Velocity, Variety and Volume** that cannot be handled by traditional systems.

Where do they gather the data from? Pretty much everywhere we go. From every transaction we make to every signal that is emitted by our GPS system. It all says something about us.

Big Data for Business Intelligence is collected through:

- **Machine-sourced event logs**
- **Processor usage**
- **Database transactions**
- **Website click-throughs**
- **Sensor interaction**

DATA ANALYST PRIMER FOR RECRUITERS:

What is the Difference between a Data Analyst and a Data Scientist?

In general:

Data Analyst –

- Collects and structures the raw data
- Creates smaller more manageable data sets relating to what happened.

Data Scientist –
- Investigates the structured data sets
- Carries out predictive analysis in order to forecast what is likely to happen in the future.

A couple of slides straight from my Business Intelligence and Data Analyst course coming up …

Recruitment Relevance: What are the skillsets in demand for Data Analysts and Data Scientists?

If you're recruiting in this area, you are looking for an excellent mix between mathematics, statistical analysis and technology. Hopefully this slide will help...

Data Analyst

- OLTP
- SQL language
- NoSQL
- Databases
- Distributed and cluster: Hadoop, Hbase, Hive
- MapReduce
- Data Warehousing, ETL
- Cassandra
- Splunk
- MongoDb

Data Scientist

- OLAP,ROLAP, MOLAP, HOLAP
- DB systems (SQL, NoSQL,MySQL, Hive etc)
- Clustered systems
- Python, C++, Java and R
- Serious stats and maths
- Machine learning algorithms:
  - Naïve Bayes, Monte-Carlo Simulations, K-Means clustering, Markov chains
- Cubes, Hypercubes, slice and dice
- Continuous improvement

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That's it for Data. Let's move on to Web technologies that are due to rise in 2017.
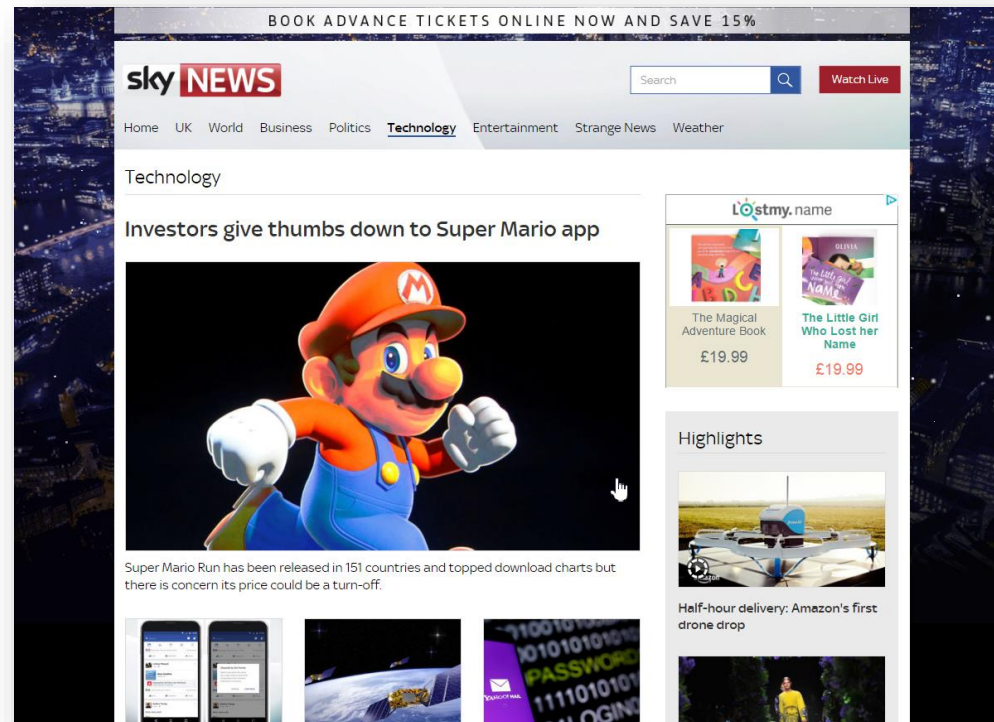
Web technology in 2017

What's happening in the world of Web Development?

The skillset demand here is crazy! So here's a breakdown of the key technologies in demand in the world of web development.

Think SPA rather than static web

Single Page Applications are the in thing. The idea of an entire web site essentially presented to the user in a single page, so that there is no (or minimal) reloading of pages. An SPA web site has elements all over it which are like autonomous components that bring back the results for the user. These could be weather widgets, trade prices, or breaking news feeds.

Let's take a look at the web technology skillsets needed for 2017.

JavaScript and all its Frameworks

Because of the huge rise of interactive Single Page Applications across all devices, JavaScript and other scripting languages have become all the rage. Specifically JavaScript frameworks such as

- **JQuery, Angular.js, React.js, Require.js, Respond.js** and **Knockout.js** for client-side web development, and
- **Node.js** for Server-side development.

Why the huge rise in JavaScript?

Here's a quick primer:

- There is a huge rise and diversity in FE development across devices.
- Popularity of **Wordpress** type sites and the SPA approach.
- It has fast development time with great functionality

- JS in Node gives strong server side capability.
- It is iOS and Android friendly
- A huge selection of established libraries
- JSON gives great data processing across browsers
- **GitHub** and **Grunt** allow huge repositories of code to be widely shared. If you need a piece of code to do something, someone has probably already created it in JavaScript and put it here.

CSS - Cascading Style Sheets

Simplicity and ease of use means CSS is still in huge demand. One single file in CSS allows you to set the overall layout and format of the page/site. It 'dresses' the site in a way you want. So the content can remain the same, but the 'dress' can change. So if you wanted a change (i.e font colour, menu format, border colour) to be applied to the entire site, you would no longer need to go through all of your HTML to do so. Simply change the one CSS file code, and the instruction will 'cascade' through the entire site instantaneously!
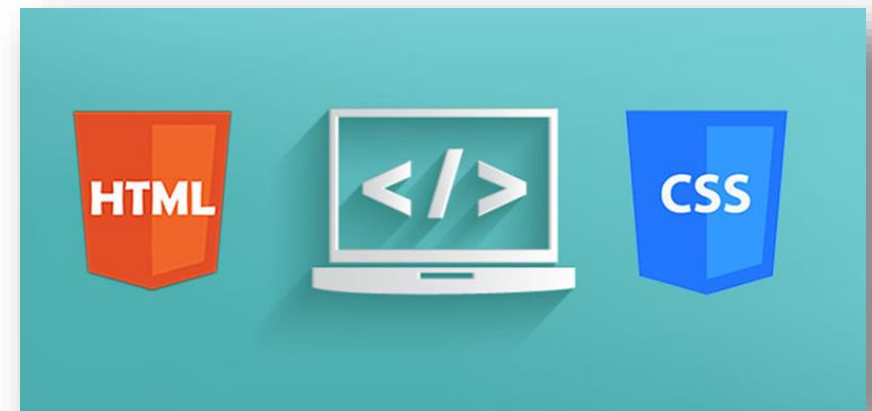
Finally, a word about IT methods and Approaches in 2017

Finally you should understand the approach or philosophy that your IT department uses? This an area which instills a religious fervor amongst IT devotees. This dictates the very culture within an organisation. I won't go through them all, but will touch upon the old and the new to describe the contrast and changes that are afoot.

The Way We Were
PRINCE2 and the waterfall model

The old structured approach relied on many stages and plenty of time and money. Waterfall model has been used worldwide since its inception. It is clear and precise. But it had its flaws. Projects took forever, by which time products were obsolete. So the new methods sprung up. The structured approach is not completely dead. Not quite

yet. But it's good to keep an eye on these things. And invaluable to understand if your client likes to work in the alternative way.

The *new* New Way

The new methods such as **Agile, Scrum, Extreme, TDD**, **DevOps** and even **PRINCE2 Agile** are continuing to advance forward around the world. The key reason being that these methods collectively share key principles. They set a timescale in months rather than years to bring in a fully functioning product. Other common reasons why these methods are flourishing are:

- **Individuals work in teams. An emphasis on interaction over processes and tools.**
- **Creating working software rather than focusing on documentation.**
- **Easier to respond to changes in market conditions.**
- **Users are involved so the product is rarely obsolete by the time of delivery.**

Should any of this this matter to us as recruiters? Of course. When we understand the mindset of the IT architects and visionaries within our clients companies we can synchronize with their way of thinking from a recruitment perspective. But as with all these things, there are troughs and waves of new trends. Understand them and their implications, and be ready to change again as the new evangelists pour forth with new teachings.

SUMMARY

I continue to be amazed by this industry! What a mind-blowing recruitment sector we are in. Seasons come and go, political environments ebb and flow, but there seems to be no let-up in the pace at which innovative ideas are driving society forward from a technological perspective. This is because of the unprecedented surge that has been created when consumer lust for all things tech coincides with infrastructural change that can deliver the platform for change. We are at a truly amazing point in our species. At the intersection where dreams, capabilities, and ideologies are coming together to push forward a vision of the future. A future which seems unhindered by the restraints of politics, governments or dogma. The visionaries of today are also the people with the power to fulfill and a lust for creativity. As we speak Elon Musk is seriously planning

how we can save the species by heading for Mars. The debates in academic circles center around the impact that a growing AI robotic workforce might have on humanity. When so much of our *raison d'etre* starts to diminish, the nature and purpose of existence both at a species and individual level need to be re-assessed and redefined. We are entering some seriously unchartered territories. But I am looking forward to a future where I may have to include 'the ethics of driverless cars', '3D printing of human organs', and 'Watson Apps in the NHS', as modules in my training sessions. What will be the shape of our world as we move forward? Whatever the answer, you as recruiters are the people sourcing the lifeblood of change. You are seeking out those candidates, from programmers to architects. From Business Analysts to helpdesk analysts. And there can be no more exciting industry to be in.

I hope this report has helped. And as always I will consider myself privileged if I am once again counted on to provide training and advice for you and your colleagues in the coming year.

See you soon on my travels, podcasts and online interactions, and my best wishes to you all for 2017!

Ayub.

(My contact details overleaf)

About Ayub Shaikh

Ayub Shaikh is founder of Holistica Consulting Ltd, and has been coaching IT recruitment consultancies and HR departments globally for over 16 years. He is the author of the 'IT Recruitment Survival Guide' (available on most online bookstores) and delivers both classroom-based and online training to demystify technology.

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