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A look ahead at the most important technology trends affecting your business.

Blockchain

The market for blockchain, the technology behind Bitcoin transactions, is expected to reach $7.7 billion by the year 2022, up from $411.5 million in 2017.

>> What exactly is blockchain, in English?
>> How does it apply to our businesses, if at all?
>> Is this technology worth learning and understanding?

Shrinking Workspaces

According to Global Workplace Analytics, about one fourth of U.S. employees telework at least some of the time. Fortune 1000 companies worldwide are "entirely revamping their space" in response to increasingly mobile workforces.

>> How are workplaces changing?
>> What are the benefits of this new approach?
>> What must you consider as you make the transition to a smaller workspace?

Bandwidth Strategy

RightScale's 2017 State of the Cloud Survey reports that companies now run 79% of workloads in the cloud. Cloud computing will only be successful with the right bandwidth strategy in place.

>> Why is something as simple as bandwidth worth our attention?
>> What are the risks of not having a solid strategy in place?
>> What does a good bandwidth strategy include?

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Blockchain

> ### What is blockchain, and why is it a trend?

Blockchain is a type of database that runs each new record through a multi-pronged, peer-to-peer validation process. Validated records are stored securely over multiple distributed computers, and (theoretically) cannot be altered or deleted.

The technology was developed in 2008 to power the cryptocurrency Bitcoin. Here's how it works:

>> You want to transfer Bitcoins from your wallet to someone else's. Your transaction request is sent out to individuals in the Bitcoin community, each of whom count as a "node."

>> Nodes are asked to confirm your transaction. (Do you actually have enough unspent funds in your wallet to make the transfer? Does the transaction conflict with any others?)

>> If a node finds the transaction valid, they compile that transaction, along with several others they've approved, into a "block."

>> The block itself goes through another validation cycle. When approved, the block is officially added to the blockchain, which each node keeps a copy of on their machine. This counts as one confirmation.

>> As another block is appended to the end of the chain, your individual transaction is either reconfirmed or invalidated. Should your transaction be confirmed 6 times, your transaction is considered secure.

Between 2014 and 2015, investors poured over $800 million into blockchain startups. Last year, the market for blockchain was $411.5 million. By 2022, this market is expected to explode to $7.7 billion.

And today, no one can seem to stop talking about it.

> ### Why does it matter?

There are some real benefits to this technology that can't be replicated by traditional institutions:

>> The transactions require no middleman, which saves time and money.

>> The distributed nature makes it highly secure, highly reliable, and highly available compared to centralized databases.

>> Once records are validated, they're nearly immutable.

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Beyond cryptocurrency, there are a few areas in particular that blockchain is expected to "revolutionize":

>> Financial transactions in the form of "smart contracts" that can automatically trigger transactions once predetermined conditions are met.
>> Protecting and authenticating your identity, medical history, educational certifications, etc.
>> Tracking assets — digital or physical — in a way that prevents titles and other records of ownership from being lost or destroyed.
>> Storing corporate data with almost no risk of it being breached or lost.

Could you see any of these applications impacting your industry? Your clients?

> We recommend...

Keeping an eye on this technology. Cryptocurrency, as we've already seen, is a volatile market that is not ready for widespread adoption; most of us won't have much to gain by accepting these transactions in place of dollars any time soon.

We are, however, starting to see large nonprofits like the World Food Programme work to use blockchain based digital identity verification to provide aid to refugees in a more efficient and cost effective way, and may see other humanitarian aid programs follow suit.

If your business is generally looking to get ahead of the curve on this up and coming industry, or if you see your clients taking particular interest in any of its potential applications, you would be wise to jump in fully, and jump in quickly.

But in general, we still have a ways to go before this technology becomes mainstream, and before it affects most of our businesses in any substantial way.

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Shrinking Workspaces

> ### Why are shrinking workplaces a trend?

This trend comes in response to another: increasingly mobile and remote workforces.

According to Global Workplace Analytics, 50% of the US workforce holds a job that is compatible with at least partial telework, and 20 25% of the workforce teleworks at some frequency.

This is a number we expect to grow at a steady pace over the next several years. Overall, 80% to 90% of the US workforce says they would like to telework at least part time. This number jumps to 95% when you focus in on Millennials, who will make up a full two thirds of the global workforce by 2025.

As more and more of us are working from the field or from our homes, the traditional workplaces is, as one of our clients put it, becoming the place where people are *not*. The logical next question: *Why have this big, expensive office if it's hardly being used?*

> ### Why does it matter?

Because as the nature of our workforce changes, it makes good sense to adapt our workspaces to accommodate and facilitate this new style of work.

Global Workplace Analytics reports that Fortune 1000 companies worldwide are "entirely revamping their space" in response to increasingly mobile workforces employees, they found, are not at their desks between 50 60% of the time.

We're seeing a growing number of our clients downsize their spaces, some have eliminated their physical offices altogether, and we're about to begin our own office redesign that will better accommodate the more transient nature of our team. In many cases, traditional office spaces just don't make sense anymore.

And there are some compelling benefits to this shift: on top of decreased rent expenses which is a *HUGE* benefit on its own offering your team this increased flexibility can also have a significant positive impact on productivity and morale.

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Shrinking Workspaces

> We recommend...

Approaching this transition to smaller (or nonexistent) workplaces strategically and with great care; there's much to be gained here, but also much to be lost if you rush into it too hastily.

First and foremost, consider your people. Regarding your remote workforce, take the time to evaluate:

>> What policies you need to have in place for remote work, and how you plan to disseminate and enforce these policies.

>> What technology you need to have in place to set your remote workforce up for success, to facilitate effective collaboration, and to maintain the security of your data.

>> How your corporate culture will translate to those with limited exposure to their coworkers, managers, and company leadership (technology will be your main vehicle here).

>> What other measures you need to take to make sure that your employees don't feel isolated, unsupported, or otherwise disengaged.

If you decide that a smaller workspace makes sense for your company, consider the following:

>> Having the necessary mobile devices, cloud based systems, and wireless connectivity to allow your people to pick up, move, and productive from anywhere in your space.

>> Incorporating "huddle spaces" that will allow small groups to spontaneously congregate collaborate.

>> Balancing open areas with spaces for private meetings.

>> How else you can make sure that as the quantity of your interactions decreases, the quality of those interactions increases to compensate.

All told, our workspaces aren't just places to work anymore; they're a place that must help engage our employees, and be somewhere they want to come to.

We are, of course, happy to help you strategize here.

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Bandwidth Strategy

> Why is bandwidth strategy a trend?

Cloud computing is becoming ubiquitous. According to RightScale's 2017 State of the Cloud Survey, companies now run 79% of workloads in the cloud on average.

And as we continue to migrate our operations to the cloud, we're putting an increasingly heavy burden on our internet connections, which can only handle a finite amount of demand.

Too often businesses overlook a critical piece of the puzzle, one that can make or break your experience (and, ultimately, your effectiveness as an organization): proper bandwidth strategy.

> Why does it matter?

Without the right bandwidth strategy in place, our internet performance will take a nose dive. Cloud applications will be sluggish, and we'll have a very hard time being productive.

As our productivity drops, so too will patience; it won't be long until your team gets frustrated by the fact that they can't work effectively. Beyond internal frustration, we might start seeing frustration on the part of our clients, the people who are depending on your team to meet their deadlines and generally be responsive to their needs.

In other words, we'll see a technical issue very quickly blossom into issues of morale, client satisfaction, and possibly even revenue if billable hours are involved.

> We recommend…

Assessing your current bandwidth strategy *before* moving any more of your work functions into the cloud. Ask yourself the following:

>> Is your office bandwidth of sufficient quantity *and quality*?
>> If not, what other business grade solutions are available, and what will it take to implement them?

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>> Do you have a secondary internet line that will automatically take the load if your primary line fails?

>> What if all your internet access — primary and secondary — goes down? What is your contingency plan?

>> Have you created a remote work policy that outlines the minimum bandwidth requirements for your remote workers so they can be productive?

>> Is your organization willing to foot the bill for acceptable internet for your remote workers?

>> If a remote worker's internet access goes down, what specifically do you expect them to do in order to continue working?

Think through each of these, and create formal written policies and procedures wherever appropriate. Wrap them into your technology strategy, your business strategy, and your new employee onboarding routine.

It's not a quick or easy process, but it's one we all need to take the time to work through if we intend to be our most productive and most effective.

Because while the cloud can do wonders for our businesses, our experience will only be as good as the connection behind it.