impatient

2021 Predictions

A precarious year for life sciences.

Paul Simms
January 5th, 2021

Predictions are important.

However, most attempts at predictions are safe, obvious and vague – chiefly because the person making them is concerned with being right, and preserving their reputation.

These predictions are different.

Accuracy is not the aim – many of them will likely miss the mark. Yet as Eisenhower said, ‘plans are worthless, but planning is everything’. Our perception of what is possible in the future has a dramatic impact on what transpires. This isn’t wooly conjecture – it is how budgets are set, strategies are created and investments are made. The process of projecting possible futures is essential if we are to become any different from how we are today.

In 2020, our primary goal was business continuity in the face of a pandemic. In 2021, we should shed our fear of failure: this is a time to be bold, experimental and invest for the long-term.

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This paper is also designed to introduce my new company, **Impatient Health**. We are looking to support those in life sciences who are pioneering new initiatives to push healthcare to a better place. The restless entrepreneurs and intrapreneurs who believe a new type of value is possible.

If you're trying to maintain operations, or grow incrementally, there are plenty of reputable consultancies and agencies which will look after you. If you're trying to do something brand new, please get in touch.

Paul Simms

2021 Predictions

**Covid-19 is *not* just an accelerant.
Or at least, it doesn't have to be.**

It is true that trends have jumped many years in just a few months. Things that were on a distant horizon are suddenly a lot nearer. But speed is just an external factor. Consider the difference between Web 1.0 companies (digitised versions of what previously existed previously, offline) and the newer generation of dominant Web 2.0 companies (business models that could only exist digitally, such as Uber, Snapchat, Airbnb, App Stores etc).

On the one hand, increased internet speeds and ubiquity were 'only an accelerant', but to those with a creative spark, this new platform meant that transformative business models could thrive. The same is true of Covid-19.

Here are my predictions.

1

A pharma company buys the consumer.

Let's imagine, for a moment, that I was an entrepreneur who one day lost all my savings in a failed venture.

The next day, would I go out and buy a Ferrari?

Of course not.

But, amazingly, this is what the pharmaceutical industry is still hoping I do.

Ferrari's mission is to build 'symbols of Italian excellence'... These cars are objects of desire - high performance, beautiful to look at, sophisticated engineering... and incredibly high margin: Ford has to sell 907 more vehicles to earn the same profit as a single Ferrari.

So you can see why pharma would want to focus on the medical equivalent. Specialty medicines are similarly objects of real desire for a subset of patients. The treatments employ sophisticated science... and yes, a high margin. The problem is that not all of us can afford them, and it shouldn't be the only type of innovation we offer.

For years we have known about the steadily declining productivity of R&D, so for years, our remedy has been to drive profitability chiefly through (a) rising prices on existing medicines, and (b) an increasing focus on driving new innovations in specialty medicine where competition is lower and earnings higher.

But Covid-19 has been expensive. Eye-wateringly expensive. According to the Institute of International Finance, global debt rose to roughly $277,000,000,000,000 by the end of 2020. That is $37,000 for every man, woman and child on this earth. It amounts to 360% of global GDP... a 50% rise on this time last year. As wonderful as cell and gene therapy is, as transformative as it is for patients, it is going to be very difficult for us to shoulder the financial burdens.

David Mitchell
President and Founder,
Patients for Affordable Drugs

"Pharma has continued to raise prices, even during the pandemic," complained David Mitchell, the President and Founder of Patients for Affordable Drugs, which counted wholesale price hikes (before rebates and discounts) and found nearly 500 exceeded the rate of inflation. In one case, the price rose 1600%.

Joe Jimenez (former CEO, Novartis), said to me in November that "The pharmaceutical industry's future performance is, for the first time, actually not wholly dependent on R&D." He went on to describe how it's a renewed focus on finding the pockets of value in large-population chronic disease that will sustain our industry, and it is those of us outside R&D that must now take responsibility for this innovation focus.

With less money in the system, pharma is coming to terms with the fact that R&D alone, focussed on specialty areas, is no longer the sole or best investment. The US allocates 90% of its annual $4 trillion spent on US healthcare on chronic conditions including obesity, diabetes, substance abuse and mental health issues. Meanwhile, instead of detecting diseases when they're raindrops, we wait until they become hurricanes that flood and overrun the healthcare system. Addressing these areas are where we can find real outcomes and sustain our industry.

Combine this with the increased realization by pharma that (for many reasons) in fact it has no relations with its end users (unlike many other industries where this is not only the case but also a predictor of success), and it is inevitable that pharma will invest into, for the first time, more direct customer relations that are medicine-agnostic. For example, Sanofi is currently building its first 'Virtual Healthcare (VHC) Franchise. Compliance has been a breeze, as there is no medicine to promote.

John Maraganore
CEO, Alnylam Pharmaceuticals

Some industry executives are willing to acknowledge the problem. "Frankly, I am ashamed of my brothers and sisters in the industry when they do that. I really am. And I believe they're doing it because they don't have a source of innovation for growth otherwise, and I think that's unfortunate."

Internal efforts may arise, but pharma does not have the qualities, services or products to seduce customers directly, which leaves buying the primary route to proceed in this direction. I predict that at least one major company will confirm such a purchase this year.

2

A new era of unconscious wellness.

Currently when you watch something on YouTube, you click a link, type a URL or perform a search.

Pretty easy, right? A whole universe of content for very little effort.

But do you know what's even easier than typing, searching and clicking? NOT typing, searching or clicking.

As a result, TikTok has become a popular phenomenon: an endless onslaught of short videos that steadily become more and more addictive over time as the algorithm learns what you like and don't like.

This type of consumption is coming to other aspects of our lives. It's a big misnomer that consumers want choice, even though they want personalisation. The average adult is already having to make thousands of conscious decisions a day, and is looking to limit them: this is one reason behind the rise of Amazon Prime, a membership club where you can rely on a single company to provide you with the vast majority of what you need, at a low (but not necessarily the lowest) cost, without the need to shop around. 82% of American households now have access. Statistically you are far more likely to get a divorce than break up with Amazon Prime, such is your disinclination to research every purchase.

Eric Schmidt
Former CEO, Google

> “TikTok can be understood as the most entertaining 15 seconds of your life - over, and over, and over again”

But Amazon today is still the equivalent of YouTube. Soon it will become more like TikTok, where goods are served to you on an automated basis, based on your historical preferences but with further refinement: your weekly delivery will give you the chance to not just receive goods but also to reject goods, further training the algorithm as to your preferences.

Professor Scott Galloway of NYU calls this Algorithmic Commerce, or A-commerce. Why is it so attractive? Primarily because companies that have managed to generate recurring revenue are being rewarded enormously by the market. Recurring revenue is the portion of a company’s revenue stream that is predictable: monogamy pays off. In fact, the market typically considers these companies six to ten times more valuable than transactional companies who have to restart their consumer relationship with every purchase. Adobe is a good example: from 2010 to 2019 recurring revenue rose from less than 10% to over 90% of company sales, and over that same period went from being valued at 4x to 18x earnings. Apple has started to show similar numbers. Knowing that iPhone sales would slow, driving subscription revenues from 10% to 22% in the past year has ensured the market has provided a near doubling of price-to-earnings from 15x to 30x in that period. Meanwhile, Disney, a company that many thought would be heavily battered through the pandemic (due to their reliance on theme park and cinema revenues), has seen an enormous rise as Disney+ subscriptions beat expectations.

Let’s come back to healthcare. For many years we have talked about the new dawn of the ‘quantified self’ as it has become increasingly easy for individuals to adorn themselves with devices that provide readouts on many metrics (I myself just discovered that my steps measure 73cm in length, using the Health App on my phone). This will satisfy a handful of nerds, but the vast majority don't want to have to absorb or analyse their personal data, or try and navigate all the dirty and sometimes conflicting health advice. So if algorithms can predict and understand what videos you want to watch and what groceries you want to buy, why can't they also predict what healthcare and wellness services would benefit you? Healthcare is about to become passive.

nQ Medical has designed technology which can determine whether a smartphone user has succumbed to a neurological disease (such as Parkinson's, ALS etc), often years before they are diagnosed by a physician. It can do this simply be analysing how the user types or carries their phone. As this technology develops it is likely to become embedded within a range of apps or even the OS, providing an invisible diagnostic layer.

Like Benjamin Button, these services get better with age. The more you use them, the more others use them, the more accurate the algorithms become, a virtuous cycle. And with tremendous cost savings: no need to advertise, no need to house large inventories, no need to put money aside for a rainy day, algorithmic commerce has several ancillary advantages.

We are heading for unconscious wellness, where companies deploy algorithms that are increasingly responsible for consumer decisions or should I say, less consumer decisions. It's zero-click healthcare.

3

Vaccine nationalism will expose pharma’s ugly side.

Having been berated over price increases for so many years, drug companies were suddenly recast as the global saviours that could rescue us from the Covid-19 pandemic and literally save the world.

The sudden turn of events has allowed the industry to temporarily bask in a warm, glowing light, and rightly so given the extraordinary efforts and ingenuity deployed by vaccine development teams in 2020. But this may not change our fortunes in the long run. Instead, the pandemic will throw into sharp relief the debate over profits, innovation, and intellectual property on one side, and affordability and access on the other. We will soon see this get ugly, because whilst pharma companies have generally been very transparent and chivalrous in promising non-profit distribution of the vaccines (which, by the way, is only fair since over 50% of the funding to create them came from the public purse), the issue of global market access and access to innovation is going to expose us.

The Trump administration made some last-minute efforts to address drug pricing – a rule ending rebates that drugmakers pay to pharmacy benefit managers for Medicare Part D drugs, and another forcing drug makers to offer their medicines to Medicare at the same prices they do in other countries. But legal challenges are already under way, and even though the Democrats have just prevailed in the battle to win control of Congress, legislation like this is unlikely to see the light of day for at least the first two years of the Biden term. The drug pricing issue has essentially been put on ice. You might say, “lucky pharma.”

But our industry is still capable of shooting itself in the foot. Even though the WHO created COVAX to try and obtain 2 billion doses for developing countries, very little has actually been secured yet, and they're still seeking $7bn to make it happen. And so 'vaccine nationalism' has become a new challenge. Whilst Jacinda Ardern, PM of New Zealand, has said that her over-ordering of vaccines will allow her to give some to Pacific Island countries that couldn't negotiate their own, the problem is that New Zealand has ordered mainly from Novavax and J&J which aren't ready yet - meanwhile, India, a major drug manufacturer (making large quantities of the AZ vaccine for example) is the latest example of a country that has unsurprisingly decided to hoard supplies, ensuring its own population is treated first.

Knowing that pressure on governments is likely futile, there has already been a massive effort from many advocacy groups and academics to get pharma companies to share their technology, knowhow, biological material and IP with other producers to ensure supply. There has also been the creation of the People's Vaccine Alliance by several major charities. These efforts to push the pharmaceutical industry to voluntarily enable better rollout (through another WHO initiative called the Covid-19 Technology Access Pool) have so far been met by a brick wall by pharma, despite being requested several weeks ago. Perhaps pharmaceutical companies do want to retain the ability to sell, at a profit, vaccines in the future?

I believe the attempt to create any commercial gain from this vaccine is foolhardy, even if not for several years. Hence, my prediction is that even if our industry has tried to show some recent generosity, the inequity of distribution will once again desecrate our reputation.

4

Pharma leaps to a web 2.0 model.

Large consultancies often release reports with names like 'Pharma 3.0' or similar.

This is bullshit.

In reality, pharma is still stuck in the equivalent of Web 1.0.

I define Web 1.0 as a place where we simply digitise what existed before. The pandemic revealed our level of digitisation when we attempted to lockdown during March 2020, exposing some significant frailties. Some areas, such as clinical trials, required gargantuan effort to get there, with many patient protocols being redesigned in record time.

Despite our efforts, we're just at the beginning. Business continuity was the vital focus for many months but it's not going to help differentiate or find strategic advantage long-term. More is required - after all, how many Web 1.0 companies still exist now? Have you visited Altavista, Geocities, Lycos or AOL recently?

Web 2.0 clearly dominates today. Typically, web 2.0 companies have been able to monopolise various service areas by creating winner-takes-all platform business models. In these cases they don't own the core asset, they connect the owners of those assets with the customers in a convenient way. Uber doesn't own cars, but connects drivers to passengers. Airbnb doesn't own houses, but connects hosts to guests. Google doesn't own websites, but connects creators to viewers. Apple doesn't own apps but connects developers to phone users. And so on.

For about 3 years, I've been saying that one day this business model will eventually emerge in pharma, and it's finally starting to happen.

It's happening because there aren't many good options when launching a drug. Suppose you're a biotech company or an academic that has come up with a great new treatment. You're getting successful trial results and your fortunes are looking good. At this point you have two options. You either decide to go it alone and build your own commercial unit (very expensive, very risky, very unfamiliar) or, more commonly, you sell out (and never get to take your medicine to patients). The rights to your drug or your company are acquired or licensed by a larger player which already has a commercial footprint in the appropriate therapy area.

For the drug developer, neither of these options are great. You either take on massive risk or you lose the vast majority of what you've built in return for giving the risk to someone else.

But imagine there was a third way. Another type of organisation that operates a similar business model to the Apple App Store (where the original developer keeps 70% of revenues and 30% go to Apple for providing the distribution/platform). Obviously pharma's commercialisation is far more complex, but it helps illustrate a model where you would get to market, keep control and keep the majority of the ownership.

The equivalent in our industry would be a new type of digital development or commercialisation partner. The USP they'd offer to biotech is they'd be able to say "I'll develop and commercialise your drug for free, upfront, and I'll take a share of the future success."

This business model is emerging. The leading player is Eversana, which at first glance might look like a regular management consultancy but is actually pursuing this model quite aggressively. Their aim is to do so whilst avoiding building many of the legacy fashion pharma that may not be necessary for the long-term. Yet they'll need muscle: Eversana plans to launch up to 13 drugs in 2021 which, as you can immediately see, is an order of magnitude greater than the majority of big pharma companies.

Assuming Eversana does well, I expect to see other full-suite providers such as IQVIA, Veeva, Syneos (and perhaps some coalitions of smaller firms) moving in this direction, working at-risk.

5

Digital health kills telemedicine.

The number of practices offering telemedicine connectivity in the U.S. grew from 59% to 76% during 2020.

With the regulatory and practical barriers melting away almost instantly, the actual number of visits shot up from just 1% to an impressive peak of 65%.

Telemedicine, of course, isn't going anywhere. But it won't necessarily dominate as many believe. The reality is that we will see a bifurcation, with routine conversations happening remotely, but a lot of care - including primary care - still happening in-person once the pandemic subsides. Doctors need to see and touch and feel and probe, and these things are not yet easy to do on zoom calls. Most importantly, a lot of payments for follow-up services only happen when a patient is on site, particularly in the US.

I believe telemedicine will still be outgunned by more serious innovation at the patient interface.

Back in 2015, the industry with the lowest NPS (Net Promoter Scores) were TV service providers, particularly cable providers in the US. A man called Reed Hastings who had operated a DVD-by-mail service and recently launched an online version, recognised there was an opportunity to circumvent consumer frustration, eventually leading to the mass vertical integration and tripling of Netflix's original content budget. Now the most popular content on the platform is home-grown. This has paid off for Netflix owners with shares quadrupling, adding $200 billion to its market capitalization since 2015, most of that prior to the pandemic.

Let's look at 2020. Which industry has the worst NPS scores but the highest margins? You guessed it: healthcare. So, one of the greatest transfers of stakeholder value and history is likely to happen over the next five years in healthcare, shifting from incumbents to new players. A lot of innovators will enter the space between the patient and the provider, most of which offer a deeper relationship or understanding through digital health. We saw a record $9.4bn investment in 2020 which beats the previous $8.2bn record, according to Rock Health. Of particular interest is that deal size is up 1.5x on last year, shows a significant increase in confidence and ambition.

I also predict a bright future for enabling technologies. This is technology that allows processes that historically take place in a care setting, such as a hospital, to take place at home. One of my favourite companies
is Enable Injections, creators of a very simple device that looks similar to a yo-yo, allowing patients to safely inject themselves in their own homes without exposing them to a needle, working directly from the vial and offering digital connectivity (allowing a pharma or adherence company to determine when and how the medicine was taken).

Meanwhile, companies like Merck and AstraZeneca are experimenting with subcutaneous injection of cancer PD-1 and PD-L1 inhibitors (including important medicines like Keytruda and Imfinzi), encouraging this field to open up later this year.

According
to Deloitte

65% of providers said they value self-administration methods for patients, including via auto-injectors or wearable devices, items that have been added to more wishlists as the pandemic has continued.

Many patients report that they want to go to their providers' offices less often, even after the public health crisis has abated, suggesting an opportunity for pharma companies to support the public's changing needs through this type of technology. Desire may be stronger in non-US markets where there is greater incentive to save costs.

6

Amazon wins healthcare – as a side gig.

This week, Amazon announced that it is disbanding Haven, the health insurance venture set up with Berkshire Hathaway and JP Morgan.

Don't let that distract you: Amazon is still very focussed on healthcare; indeed one of the reasons the joint operation fell apart was because of this company's strong ambitions beyond it's partners.

Amazon is compelled to enter healthcare due to its need for continued growth. Healthcare offers superior margins, but despite that, Amazon will offer its most basic health services purely as a side-gig.

Consider for a moment Amazon Prime Video. Does Amazon make money from streaming despite the millions spent annually on original content? Not directly. It's an entire platform which is simply included with Prime membership. Its primary function is to make Prime sticky, ie. retain you as a Prime member.

It does this because, as already discussed in Prediction 2, the reliability of recurring revenue relationships are a huge driver of company value today. So 82% of American households have access to Prime membership - that's more households than erect a Christmas tree, voted in the last election or believe in God.

What is Amazon's core skill? Most people say it's their capacity for innovation, or their focus on customer experience or the profitability gained from AWS.

I would say no to all of these. Amazon's greatest skill, and source of its power, is storytelling. A skill which is available to any of us.

Recently I read all of Jeff Bezos' annual shareholder letters since the company's inception in 1997. The quality of forethought is so strong that the older letters don't look out of place even today, 20+ years later. Amazon's ability to describe a vision, firstly to investors and then later to customers, is what allows it to control the narrative as a successful company despite the lack of focus on earnings or profit, focussing instead on cashflow and lateral growth. (It seems absurd to think that Amazon once needed such a narrative to be considered a successful company, but in the early 2000s the 'dotcom crash' made it necessary). Amazon really is the only company of significant size ever that has trained its investors not to expect a profit.

A good example of Amazon's long-term attitude to cashflow and dominance came during 2020 in their Q1 earnings call. Most people were expecting the company to announce an absolute killing, given that their brick-and-mortar competitors had recently been shuttered, and $2 trillion of support payments had just been issued to American families. Instead, Bezos uttered the now-famous line, "if you're an Amazon investor, you may wish to take a seat."

The $4 billion in new profit was being reinvested. Bezos outlined a vision for at-home Covid tests, plasma donations, PPE equipment, distancing, additional compensation and protocols to adapt to a new world that benefits its customers long-term. The company also doubled its employees from 600,000 to 1.2 million over the following months (recruiting around 4500 people per day).

Again, Amazon's core competence is vision and storytelling. It's far easier to create the future when you have access to cheap capital from others, enabling extraordinary investments others can't make. It's a virtuous circle which creates new moats around potential rivals (hence why you'd be very brave to launch a new e-commerce firm today). While most firms look for competitive advantage via lowest cost, Amazon looks for sustainable advantage that requires gargantuan investment.

It's also very easy to see where Amazon's next innovations are coming from: it simply turns expense lines into revenue lines. This is driven by a desire to get really good at essential, but non-core, business functions - the sort of areas that other companies would outsource. For example, Amazon's retail offering needs a great web backend and a superior data center. World-class data centers are essential to Amazon's business, but running them is not core. Yet through scale and near-limitless capital it was possible to develop the best data center management competency on the planet. Can you imagine a pharma company doing similarly: deciding that clinical trial recruitment is a competency it is no longer going to outsource to CROs, instead becoming so good at it that they start offering it to everyone else as well?

Another example is distribution. Like with Prime Video, an entire industry (delivery) has become a feature (one-day shipping). Amazon's delivery network is now better and faster than FedEx, primarily due to more local delivery centers.

The next key expense for Amazon to externalise is healthcare. Looking after employees and paying health insurance is one of Amazon's biggest expenses, so naturally it wants to use its scale and processing power to deliver a superior service internally first, then to high-value customers. History will repeat itself, locking you into Amazon for life.

Amazon's potential is further enhanced with data. The company knows more about you than Google does: what you eat, whether you exercise, your dress size, whether you have children, whether you're in a relationship. For some it gathers further information via its credit card, Whole Foods, "pay with Amazon" merchants, the Halo wearable device and Alexa recordings. And yes, it can even target its wealthiest customers first.

Prime Health, connected to AmazonCare and Amazon Pharmacy, supported by Alexa-enabled diagnostic devices, will add more than $100bn to its value (and reduce the value of others by $200bn) on the day it announces health services, further enabling its access to cheap capital and providing the most robust, liquid remote healthcare platform on the planet.

7

Pharma removes its mask for the first time.

Pfizer’s work on a Covid-19 vaccine wasn’t just a clinical success. It was also a communications success.

Communications may seem trivial, relative to the other predictions discussed here. This is not true: the clinical performance of the new vaccine is only one aspect of beating the disease.

We’ve all heard about vaccine hesitancy, especially in the US and France, for fears over safety or something more sinister, and we could debate for the rest of the year over whether it’s pharma’s responsibility to overcome this and ensure enough people get us to herd immunity.

But Pfizer’s good communication has certainly helped. Rather than the typical, faceless press release, or any grandiose trumpet-blowing, the news was presented in the form of a simple reflection from Albert Bourla, CEO. The news travelled via company employees sharing the story on their social media or through word of mouth, clearly proud of the results. And it was honest, not declaring any victory and indeed cautioning that there were further hurdles to overcome.

It was done so well that people working at Pfizer’s competitors were also commending the work.

Pfizer has followed up on the initial announcement with a new brand identity and a series of very personable communications, for example ‘The Ice Man’, a profile of the person tasked with ensuring that ultra-cold-chain distribution is viable in the Covid vaccine rollout. And Albert Bourla was one of the few in life sciences to speak publicly about the recent pro-Trump Capitol riots, expressing how he was born and raised in Greece, then immigrated to the US when 34 as a voyage. His message appealed to the country's pride and freedom: "so many people dream of living in a country governed by the rule of law. America must continue to be that place."

I have personally been campaigning for healthcare leaders to be more inspiring, more relatable communicators for some time. Unfortunately, it has historically been far more sensible for leaders to give meaningless and empty statements that do nothing other than tick a box, or avoid speaking altogether.

But following the pandemic there is an expectation and an opportunity for our leaders to talk not just about the recent past as they typically do, but also about the future. Good narrative makes companies more valuable (sometimes referred to as 'story stocks'). We operate in the most emotive industry of all, so we have no excuses.

My prediction is that the pandemic has changed the formula, showing that transparency and personality are assets, making it more important for executives to address the public desire to hear more. Some of them might even talk about the future in a meaningful way.

My request from people listening today is to encourage this and when it happens to support it. Leaders don't have to be as provocative as me and they don't have to be Elon Musk type visionaries, but they do need to say things of substance. Communication is essential if we are to develop trust - in fact I'd say it's even more important than the industry's usual favourite leaning post - transparency.

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