10 Looking Forward: Is Winter Coming?

Our approach was to present some broad features that were so specific and/or representative of digital business configuration that they deserved to be treated as a business model in a dedicated chapter. Our approach revealed some common threads. In this conclusion, we focus on those common patterns revolving around the notion of customer intimacy and data. Data have been one of the common threads throughout this book. We then reflect on the domination and concentration of players in digital markets. Finally, we analyse emerging current patterns of the digital economy and eco-system to consider whether a dark "winter is coming" or whether a brighter "future is already there"?

Our analysis of business models has presented some categories of methods of creating and capturing value. This was not a precise taxonomy of mutually exclusive and collectively exhaustive shapes of possible business models. Companies can have a social platform element combined with a subsidised ad (free) or freemium value capture mechanism based on subscription business models. This very much describes LinkedIn, for example. In this concluding chapter, we analyse the common thread of data and its implications, before looking at the future of digital businesses.

10.1 Customer Intimacy, Data, and Its Implications

We live in a world abounding with data. The ubiquity of digital and mobile technology implies that most of our movements, interactions with apps, websites, and friends generate data. Whatever we do, we leave digital footprints behind every action. This presents both huge opportunities and challenges for digital companies.

Customer Intimacy and Data-Driven Opportunities

The most successful and omnipotent digital players in each of the business categories described earlier (sharing economy, marketplace, software as a service, social platform, etc.) share a level of understanding and a proximity with users that is virtually unmatched. This understanding is sometimes–but rarely–based on a fantastic intuition. Steve Jobs is often cited as an example of someone who had a vision that no market data could have instigated (e.g., the iPad). Yet, for all the related services of Apple, as well as most of the services offered by Google, Facebook, Microsoft, Hubspot, Amazon, and BlaBlaCar, user data is key in predicting and shaping the next wave of offerings.

In the B2C markets, these companies have all developed an app, which, if used regularly, literally means that they have penetrated the intimacy of users. Several

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studies have proposed that the mobile phone is an extension of the human self.[1] Most of us are incapable of separating ourselves from our phone and when we do, most likely by accident, we feel incomplete. That is because smartphones contain information that used to be stored in our brain (now retrieved on the Internet via Google), social connections that used to be made physically (Facebook, Instagram), mood that used to be dictated by our hearts (now triggered by a playlist on Spotify). It is the thumb that allowed us to hitchhike (now replaced by the BlaBlaCar App), the arm that hailed a taxi (Uber), the feet that walked us to the store (Amazon), the cinema (Netflix), the bookies (Bet365, PaddyPower), and so on. This consumer intimacy produces data about who, when, where, what, how, with whom, and how often, in combination with what other things users watch, scroll, listen, hear, exchange, sell, and, most importantly, buy. In 2020, IBM estimated that every person generated 1.7 megabytes of data per second! Intimacy belongs to users, but data belong to the app owner. Digital businesses are in a unique position to exploit this.

We already saw how data were instrumental to the success of Netflix. Using advanced data and analytics, Netflix can provide users with personalised movie and TV show recommendations, as well as marketing trailers, predict the popularity of original content, and therefore optimise production planning, and as any other business, inform and enhance decision-making. According to some commentators, Netflix saves $1 billion per year on customer retention because of data exploitation. Similar reasoning – possibly with less impressive figures – could be applied to most of the companies that have been mentioned in this book. Data are the new oil. Exploiting Data is and will continue to be at the heart of digital business models, whether it is to continuously improve the service and the business or even capture value from it through a data trading business model.

Data trading, the Example of Twitter

Twitter is one of the pioneers in this field of data exploitation. In 2012, the American social network created the Twitter Political Index, a live tool that was measuring the sentiment of the tweets related to Barack Obama and Mitt Romney during the presidential campaign. At the time, it was an innovative experiment to show the value embedded in the tweets. Soon, Twitter transformed this experiment into a real service. At first, it licensed all tweets to a selected pool of companies that could sell data to universities, market research agencies, and so on.

Tweets are an incredible source of value. They are public (the goal of Twitter is to share your thoughts with anyone interested in the topic, through the hashtags, and not only with your friends or followers), and can give great insights on what a (significant) part of the world thinks on a given topic in real time.

Therefore, Twitter stops making all the tweets directly available through the internal search engine, while organisations can buy access to the tweet stream on a given topic for research purposes. After some years, Twitter made this business line internal and declared data licensing among its revenue sources.

1 Belk, R. W. (2013). Extended Self in a Digital World. Journal of Consumer Research, 40(3), 477–500.

This model is called "data trading"; Twitter is probably one of the earliest cases, and one of the most virtuous. Still, it is not the only one (Trabucchi et al., 2017). The value embedded in data is simply too relevant to be overlooked*.

*See other examples and further developments on that in Trabucchi, D., Buganza, T., & Pellizzoni, E. (2017). Give Away Your Digital Services: Leveraging Big Data to Capture Value. Research-Technology Management, 60(2), 43–52.

Yet, it is precisely this grey area between the privacy and intimacy of users overlapping the ownership and exploitation of data by businesses that creates tensions and crises. So far, data-driven businesses have been able to trade on the online behaviour of users, which does not seem to match their privacy concerns.

Data (Privacy) Concerns and Regulatory Considerations

Human beings are complex. Users of digital services have expressed concerns over the use of their personal data. A 2021 KPMG report titled "Corporate Data Responsibility: Bridging the Trust Chasm" reports that 86% of the Internet users feel a growing concern about data privacy, while 78% expressed fears about the amount of data being collected. They seem ill-informed about the specifics of the data collected, by whom and for what purpose. Despite this, they remain reluctant to change their online privacy behaviour or limit their online activity. Rather than showing restraint in online data sharing behaviour, users seem to be voluntarily posting extremely personal information about themselves online for the world to see.

This apparent contradiction between online privacy concerns and actual online privacy behaviour is called the privacy paradox. There are several factors that could explain this contradiction, including a lack of knowledge. Few people read privacy policies, while others find the information too difficult to comprehend. Poor interface design, and in some cases, interface complexity, certainly contribute to this problem. Facebook, for example, has approximately 50 settings and more than 170 options, just for privacy alone; therefore, it is little surprise that users have severe problems with handling privacy settings on SNSs.

In any case, regulators have eventually taken into consideration the concerns of the public. The 2018 implementation of the General Data Protection Regulation (GDPR) in the European Union represents an effort by regulators to push back against increasingly data-reliant digital business models. The GDPR attempts to protect user privacy, requiring firms to notify users about how their data will be used, so that they may provide informed consent. GDPR "obliges the controller to take appropriate technical and organisational measures to implement data protection principles to ensure that by default only personal data that are necessary for each specific purpose of the processing are processed". The United States is following

suit, in terms of privacy regulation, with California passing the California Privacy Protection Act,[2] which is similar to the GDPR. One could argue that the new regulations regarding privacy data are coming a little late and may have a relatively limited impact, while the GDPR, for example, does not constrain the errant behaviour of digital businesses. Users do not necessarily have a choice; they are simply made aware that their data is being used but cannot refuse the terms and conditions of the service. Corporate interests typically eschew regulation, and industry self-regulation has shown its limits for protecting user privacy on numerous occasions. There is a case for introducing regulations before a pattern of data usage emerges. It seems incredibly difficult for regulators to introduce effective regulations once an entire data privacy industry and business ecosystem has been established. Regulations were introduced in 2018, 10 to 20 years after Google, Facebook, YouTube, etc. became mainstream media.

Most corporate technological giants are struggling with the challenge of balancing a data monetisation business model with protecting the privacy of their users. Apple, Amazon, Netflix, Spotify, and YouTube have all recently been hit with accusations of GDPR breaches by allegedly failing to provide basic information to citizen requests, such as how they buy, share, and store user data, a violation of the "right to access" enshrined in Article 15 of the GDPR.

It is difficult to envisage a future with less data. Data embed so much value that it would simply be a waste not to leverage them to create value for companies, users, and society. Nevertheless, the current situation seems hardly sustainable. Perhaps the order of priority for creating value should be reversed: society first, then users, and then companies. Users who are also citizens are continuing to raise important and valid questions such as: Is privacy now considered a matter of democracy? Should our personal data be a tradable good?

Data may be the real oil of the years to come. Digital businesses should therefore be aware of the hazardous nature of oil, if they want to avoid disasters such as the Deepwater Horizon oil spill.

10.2 Winners of Today and Winter of Tomorrow

The Red Queen effect refers to the increased pressure to adapt faster just to survive. It is driven by an increase in the evolutionary pace of rival technology solutions (Barnett & Hansen, 1996). Many businesses already feel that it takes all the running you can just to keep in the same place. No matter what they do, they will never catch up with the digital giants.

2 See Government of the State of California. (2013). Privacy Laws. (Accessed: 26 May 2022).

Winners-Take-All Dynamics

Tech Giants, "Big Five", previously named as GAMAM, represent the big winners from the decades of digital adoption, technology, and business developments underlying them.

In 2021, Alphabet, Amazon, Apple, Meta, and Microsoft represented on their own more than $1,4 trillion in revenue – equal, for example, to the Brazilian GDP, as pointed out by Visual Capitalist[3] analysing their 10-k reports. It continues to trust the top tier of most value companies in the world.

Amazon is the most impressive, with total revenue close to $470 billion in 2021 – largely supported by the original eCommerce activity but sustained in net income by clouding services.

Apple generates the highest net income in volume with almost $95 billion for a $366 billion revenue in 2021 – more than 80% of which is from hardware sales (iPhone, iPad, Mac, and wearables), whereas services generate the highest gross margins.

Alphabet dominates the online advertising industry, which sustains its revenues and net income. More than 85% of all Internet searches are done on Google search engines, and thanks to this large and massive user base, Alphabet generates a strong 30% net profit margin and $76 billion in net income.

Microsoft has the most diversified revenue sources with clouding services, subscriptions to Office products, and royalties on the Windows operating system. Microsoft has the highest 36% net profit margin and is more focused on B2B than B2C.

Meta is still the largest social media platform, with approximately 2.9 billion monthly active users. If they generate the lowest revenues and net income among the Big Five (close to $118 billion in revenue and $40 billion in net income), Meta generated for 2021 an impressive average revenue per user higher than $40.

These numbers are stunning confirmation, if at all needed, of winner-takes-all benefits and dynamics, as these Big Five were able to capture a disproportionately large share of the value in their own industries. This was possible due to the strong network effects at work in their market configurations, the strong brand effects they created, the high multi-homing costs (especially on social networks) and the extensive use of big data and machine learning to continue to lock-in users and sides on board.

All these Big Five reached a position of dominance worldwide and game changing in advertising, media, commerce, applications, etc. Even if they were not initially directly fighting in the same industries, they constituted giant ecosystems and digital conglomerates operating and fixing the rules of the game in the digital arena. They have strong brands, financial power, and trust technology developments. Even

3 "How Do Big Tech Giants Make Their Billions?", Published on Visualcapitalist on April 25, 2022 – and consulted in May 2022.

if governments–especially in the US and EU–are gradually enforcing anti-trust legislations, they are here to stay and shape our present and future realities; as they opened it in the past, why does it matter now?

The Red Tape of Self-Organised Creative Destruction?

From the traditional players' viewpoint, the Big Five have been perceived as disruptors and game changers in their initial industries. Digital was catalyst for value creation, as it opened up new avenues to exploit the technologies and reshape business model potentialities.

Disruption is a word often associated with digital business. Coined by the economist Clayton Christensen in the 1990s, disruption refers to *A process by which a product or service takes root initially in simple applications at the bottom of a market – typically by being less expensive and more accessible–and then relentlessly moves upmarket, eventually established displacing competitors* (Christensen Institute[4]).

At the core of all digital disruption dynamics, we find the Schumpeter's gale and the famous work of the economist Joseph Schumpeter on "creative destruction" which he defines as *the process of industrial mutation that continuously revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one* (Schumpeter, 1942, 82–83[5]). Effectively, the Big Five and other digital winners (Uber, Airbnb, Netflix, etc.) have revolutionised their respective industries, thanks to their business models. Initially, many claimed that leaders will not be able to retain their position in the future. Certainly, if they did not adapt/reinvent their value proposition, value architecture, and value capture mechanisms– that is, their business models. However, what was true in the past may no longer be relevant today. Internet is nowadays controlled by a few players, placing barriers to disruption and the ability of insurgents to become the future giants. The concentration of power and assets tends to annihilate the possibility for newcomers (entrepreneurs) to get out from the crowd and challenge their dominant positions. This is why.

First, it is easier for newcomers to envelop their services in the ecosystems of the Big Five, instead of starting their own infrastructures from scratch.

Second, it may be less possible to find any investors ready to wait for 8 to 10 years to reach a net profit margin or a break even, as was the case in the 1990s and 2000s for some of those winners-take-all players.

Third, the battle for a critical mass requires financial resources and a strong domestic market to sustain the local critical mass. For this, the potential future giants usually come from the United States or China, as they have the sufficient size, in

4 "Disruptive Innovation", on Christensen Institute website, consulted in May 2022.

5 Capitalism, Socialism and Democracy, J.A. Schumpeter (1942), reedited by Routledge in 1994.

terms of unified regulation and inhabitants, to potentially sustain a traction to convince investors. Until recently and with a few exceptions, few fast-scaling European Unicorns have emerged, partially due to the complexity of the EU (languages, laws, and regulations differ from one country to the other).

Fourth, and maybe it is the main argument of a broken creative destruction engine, the Big Five have deep pockets, and as such, have the financial power to acquire nascent promising ventures whether it is for their technologies, talents, or user database. All the Big Five regularly make the headlines in the business press for their billion dollar acquisitions (WhatsApp and Instagram by Facebook; Skype and LinkedIn by Microsoft; Waze and Fitbit by Alphabet; Beats and Intel Smartphone Modem by Apple; Zapos and MGM by Amazon), but each of them has acquired more than a hundred companies along with their development and history.[6] If a large majority are related to their core business, they also use this strategy to grow and continuously enhance their ecosystem towards new sectors and consolidate their dominant position.

It is again important to dissociate services from the companies underlying them. Often, we see, as users, these services and not competitive dynamics at the level of ecosystems.

The conditions for a conducive environment changed along the way since the early 1990s. It is widely assumed that the size and savviness of the digital user, as well as an open innovation culture, can now be taken for granted. As a result, the competitive pressure is more on recruitment and retention of talent; monopoly and leadership over technology governance; and also, the ability to lobby for appropriate policies and regulations.

10.3 "Winter is Coming" or "the Future is Already Here"?

To the relatively negative picture that we have depicted above, there may be an alternative view. 'Winter is coming' means something bad is going to happen. It is a popular Game of Thrones saying. Indeed, the market dominance of digital giants is worrying. Many commentators argue that the GAFAM constitute a form of global oligopoly against public interest. As mentioned, the role of the GAFAM in the evolution of the global economy (technological convergence, deregulation, tax optimisation, etc.) as well as their grip on the potential innovation cannot be ignored. Yet, in these concluding paragraphs, we would like to propose an alternative view that epitomises the expression *The future is already here: it's just not very evenly distributed*.

Attributed to fictional writer William Gibson, this expression alludes primarily to the fact that the things that will constitute the normal or every day in the lives of

6 For further developments, readers can consult this article from *The Washington Post* (April 21, 2021), "How Big Tech got so big: hundreds of acquisitions", consulted in May 2022.

those living in the future already exist for some today. Today, there are more than 700 unicorns – defined as privately owned, VC-backed companies valued at $1 billion or more – around the world. They are valued at just under $2 trillion. As predicted earlier, future businesses are likely to emerge out of the USA and China. Approximately 50% of unicorns are from the United States, another 25% are now from China and the rest from the other parts of the world. Many digital giants have built their hegemony by intermediating via apps or website services that already existed: food delivery (Deliveroo), taxis (Uber), and hotels (TripAdvisor, Airbnb, Booking.com).

Unicorns are scaling at an unprecedented rate. At the start of 2016, there were 165 unicorns, and by mid-2021, there were 743, an increase of 350%. A new generation of digital companies that – at least for some – seem to be a little more sophisticated in their business model ecosystem is emerging.

First, if fintech is one of the sectors that is booming (15–20% of unicorns), other sectors are prevalent too. Software & services represent 14–18%, e-commerce (10–14%), artificial intelligence (7–10%), and the health space 6–8% . Fintech, which uses innovative technologies to automate and disintermediate financial services, is symptomatic of a platformisation that affects many sectors. Finance app platforms are now expanding beyond payments to lending, digital banking, mortgages, insurance, and wealth management. Examples include Alan, a French start-up that offers health insurance coverage for individuals and businesses. Through an app, the platform connects individuals who can send medical bills and be reimbursed almost immediately, doctors who can be reached through the app's messaging and video call services, employers who can manage sick leave. Other examples include US-based SoFi (a social lending platform) and Affirm ("buy now, pay later" or BNPL platform).

Second, environmental concerns combined with servicisation of the economy are revolutionising some traditional industries. The automotive industry, for example, is digitalising its business models to also become platform-based. US-based ChargePoint, for example, operates the largest online network of independently owned EV charging stations. These initiatives are not only backed by consumer demand and VC, but also widely supported by international organisations and national governments. The European Union has committed to invest more in green digital technologies to achieve climate neutrality and accelerate the green and digital transitions in priority sectors in Europe, by using the NextGenerationEU and InvestEU funds.

Finally, the pandemic has accelerated the emergence of new business approaches in the fields of education, gaming, and virtual meetings. As students and employees were quarantined for prolonged periods, they sought virtual options for training, personal skill development, and peer interactions. They have now changed their behaviour and continue to seek solutions for remote learning, working, gaming, and meeting. GoStudent, an Austrian-based platform now valued at €3 billion, provides paid, one-to-one, video-based tutoring to primary, secondary, and college-aged students in 30+ subjects, using a membership model. Another example is

India’s BYJU’S, an education-tutoring app that runs on a freemium model, offering educational content for students who are 4 to 12 years old.

Gaming is also undergoing a substantial transformation into an environment for social connectivity and use of new technology. Dapper Labs, for example, is a consumer-focused cryptocurrency company that builds blockchain games and supports digital collectables!

Working remotely is also a big structural change that has occurred thanks to the pandemic. Remote, a Portuguese Unicorn, is considered as one of the most disruptive global payroll, tax, HR, and compliance solution. Founded in 2019, Remote targets any company with distributed teams (virtually all companies) with the mission of *opening up the world of work for every person, business, and country*.

These trends show that digitalisation of industries with the corollary need for new business models is not over. New businesses are emerging which are based on the combination of innovative technology and innovative business models. The future is already here. It is up to us to embrace, adapt to it and profit from it.