Aon Benfield Scholarship 2015

Essay Submission Front Page

Full Name:	Christy (Min-Yi) ZHOU
Phone Number:	0422-838-690
Word Count:	2456 (excludes front page, ToC, footnotes and bibliography)
Date of Submission:	07 April 2015

How could social media and web-based technology change the insurance landscape?

By

Christy Zhou, FIAA, CERA

Empower Results®

Table of Contents

1 Abstract

Social media and web-based technologies are changing consumer behaviour and business models around the world. The digital disruption that has transformed the travel, publishing, entertainment, retail and banking industries, is also affecting insurance.

A well thought out digital strategy is important as the balance of power has been shifting to consumers due to the rapid adoption of internet, smartphones, social media and aggregator websites[1]. Consumers' and businesses' insurance needs remain largely unchanged as decades ago, but their behaviours have changed radically: they now routinely use the Internet to inform, compare, buy and interact with insurers[2]. The consequence of this is increased consumer expectations, price and product competition, as well as declining customer loyalty.

This essay begins with a brief history of technological developments in the last century, suggesting the world is entering a new wave of IT transformation, characterised by social, mobile, analytics and cloud technologies, collectively known as SMAC[3]. The essay then explores changes that are currently underway:

- First, it looks at the upside of social media and the implications of new business models such as P2P[4] insurance funded by the likes of Guevara[5]. It then considers the idea of the sharing economy[6], and its relevance for insurance.
- Then, it looks at web-based technology companies such as Google and Alibaba and their adjacency in the insurance industry, highlighting implications and opportunities for insurers.

Despite the disruptive forces, the essay argues that there are opportunities amidst this changing environment. Social media and web-based technologies can assist with product development, reduce distribution cost and improve underwriting and risk assessment. This will in turn improve the performance and underlying profitability of the business and give technology enabled insurers a competitive edge.

The essay concludes with a call for innovation in a world of disruptive change. It suggests digital technology opens up doors for those who are prepared to evolve and thrive.

---

1 Insurance aggregators are more successful in UK, less so in US and Australia
2 "For insurance companies, the day of digital reckoning" - Bain & Company, March 2015
3 "SMAC and the evolution of IT" – Computer World
4 P2P: Peer-to-Peer
5 Others include: FriendsInsurance, iMingle, Bought-By-Many and InsureMyFriend
6 Examples include: Airbnb and Uber

2 Technological Evolution: Days of future and past

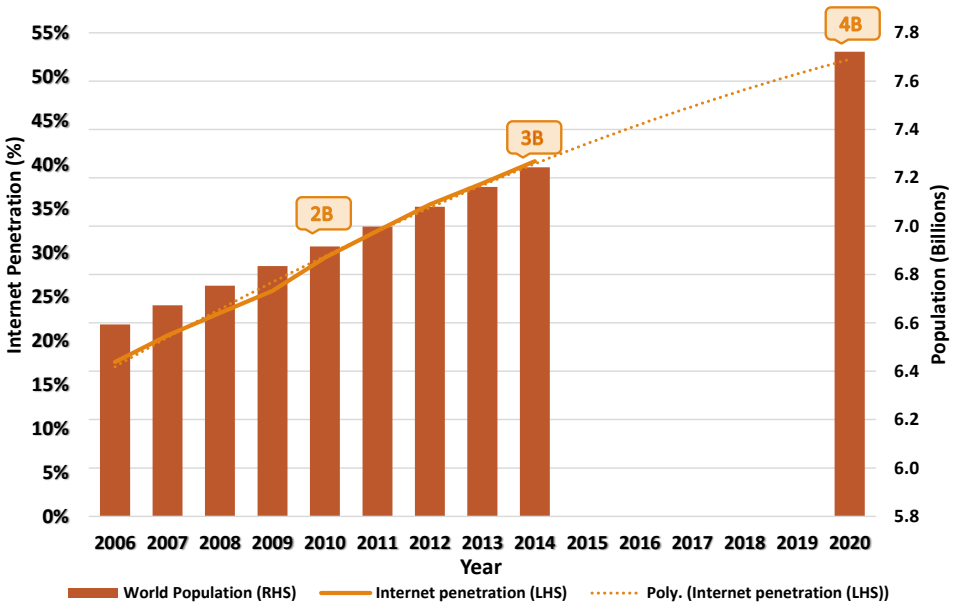
Since Alan Turing invented the first computer that cracked the Enigma code in WWII, every 15 years or so, the technology industry has been delivering new innovations that would transform the way businesses are run and customers are served. One of the common themes throughout this evolution (Figure 1) is the ever increasing computer processing power at lower cost and the resultant increase in the number of devices, applications and users. After the first 60 years, we are now entering the 5th wave of technology evolution, characterised by increasing use of computers for social connectedness, predominance of mobile and cloud computing, and the introduction of analytics to analyse data from these devices.

Figure 1 – Users in different IT era – various sources including Unisys, Cognizant, IDC

IT Era	Dates	Computers	Applications	Users
Mainframe	1950-1965	~100,000	Thousands	Millions
Mini Computing	1965-1980	~10M	Thousands	Tens of Millions
PC & Client/Server	1980-1995	~100M	Tens of Thousands	Hundreds of Millions
Internet (Web)	1995-2010	~1B	Hundreds of Thousands	~1B-2B
SMAC	2010-2025?	Tens of Billions	Millions	Many Billions

In the SMAC era, the number of devices (smartphones, tablets, wearables) is expected to explode, connecting more people in the world. Figure 2 shows that the number of web users will continue to increase from 2 billion (2010) to 3 billion (2014), reaching 4 billion in year 2020. [7]

Figure 2: World Population Growth & Internet Penetration Projection

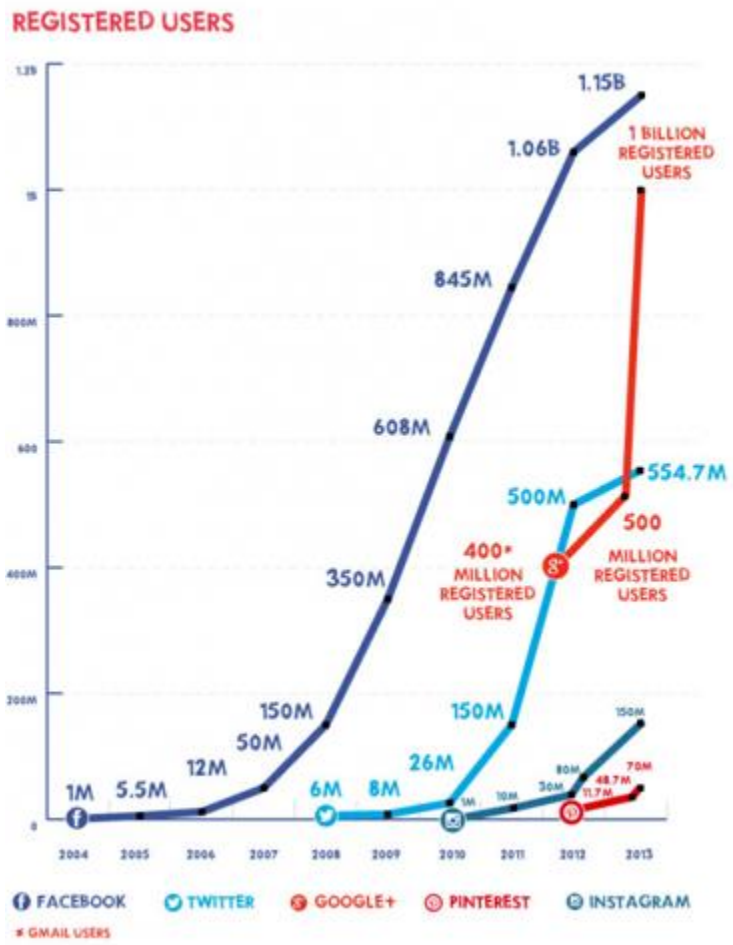


7 Figure 2 is compiled using existing data from http://www.internetlivestats.com/internet-users. Projected world population from UNData and internet penetration prediction by Microsoft Security Intelligence Report (see bibliography)

3 Social media: implications and opportunities for insurers

As a result of digital penetration, the world is becoming more and more connected. Social media platforms have experienced tremendous growth (figure 3)[8] and the trend will continue. This section explores this social force and its implications.

Figure 3 – Growth of social media



8 "The Growth of Social Media in 2014 for Financial and Insurance Advisors" - by Kayla Shaw, 2014

3.1 P2P insurance

Friendsurance & Guevara

One form of social media disruption is P2P insurance. The concept was first introduced by Friendsurance[9] in Germany and brought to UK's car insurance market by Guevara[10] in 2014.

P2P insurance allows customers to connect through social media networks to form insurance groups. There is a 'protection pool' where capital (premium less fees and insurance cost) is used to absorb smaller losses and a 'waterloo fund' (obtained through an insurance premium) is used to cover losses exceeding the 'protection pool'. If claims experience is good, subsequent year's premium would only need to top up the 'protection fund'. Hence the fewer claims the more funds are left, the cheaper the premium. Such incentives are thought to change behaviours and encourage safe driving.

"BoughtByMany"

On the other hand, "BoughtByMany" [11] is another upstart that connects people with similar insurance requirements. It helps people to aggregate demand for products that insurers have hesitated to insure on an individual basis. It makes use of social channels and relies on friend invites to select particular groups of people.

The groups of insurance include: Labrador pet insurance, travel insurance for people with diabetes etc. It allows people to get policies that are better tailored to their needs.

3.1.1 Implications and opportunities

On an aggregate basis, P2P insurance looks almost like mutual insurance and a plain vanilla insurance book. The risks are shared and experience rated for profit sharing through subsequent years' premiums. The regular insurer acts as a reinsurer offering a XOL[12] treaty.

Taking a closer look at Guevara's pricing help pages[13]. The organisation offers a promise of premium protection, where premium rates would not increase from those charged at inception, it does not however explain how this would be sustained in a climate of deteriorating claims. Whether this business model works out depends on

---

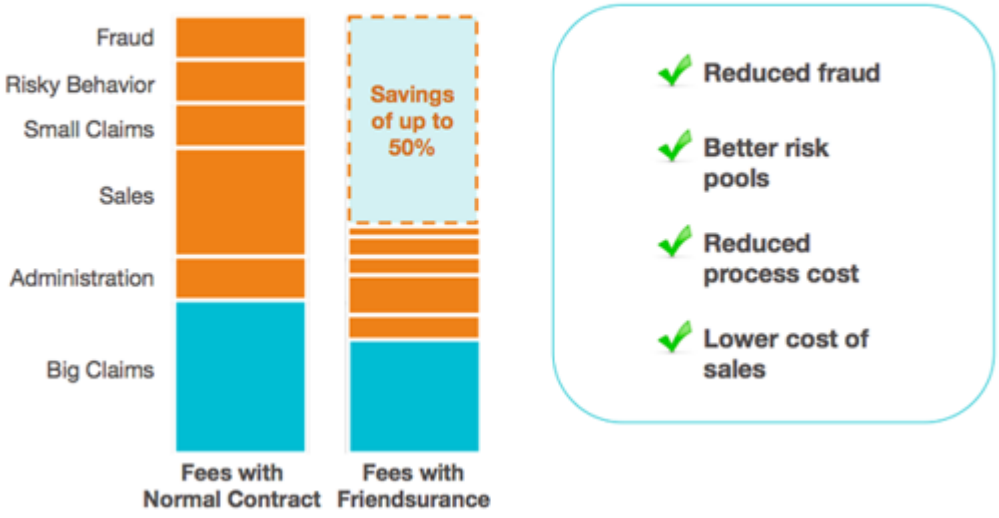
9 Friendsurance was launched in 2011 in Berlin, Germany. It was awarded "Service Innovation Award Insurance" and nominated as "Startup of the Year 2011" by online startup magazine "Gründerszene"
10 The company is named after Che Guevara, a Marxist rebel revolutionary (decidedly disruptive) - https://heyguevara.com/
11 https://boughtbymany.com/
12 XoL here means: per-risk excess-loss treaty. A type of reinsurance treaty which allows buyer to recover losses once losses exceed a predetermined threshold
13 Guevara help pages and product disclosures: https://heyguevara.com/help/pricing-basics

various issues, such as the experience of the insured after a claim, customer satisfaction, start-up's claims handling expertise, regulation and evolving social attitudes.

There are a few attractive cost reduction benefits in the P2P model which may threaten traditional insurers should take note, including:

- **Reduced acquisition cost** – The cost of writing new policies through social media (from likes, invite or share) is significantly less compared to traditional advertising.
- **Better risk selection** – P2P insurance allows people to use private information to link up with friends and family they trust, shutting out bad risks, therefore improving the risk profile.
- **Reduced claim lodgements** – Insureds are less likely to put in smaller claims and more conscious with repair costs, as the less they claim, the more they save on the following year's premium.
- **Reduced fraud** – Friends tend to be more honest with each other hence acts as a strong moral blocker for fraudulent claims.
- **Reduced cross subsidisation –** The categorisation of risks into already defined groups can reduce cross subsidization within the group and forces pricing to reflect underlying risks sooner, hence dampen the insurance cycle.

Figure 4: Benefits of P2P Insurance [14]



[14] http://www.friendsurance.com/

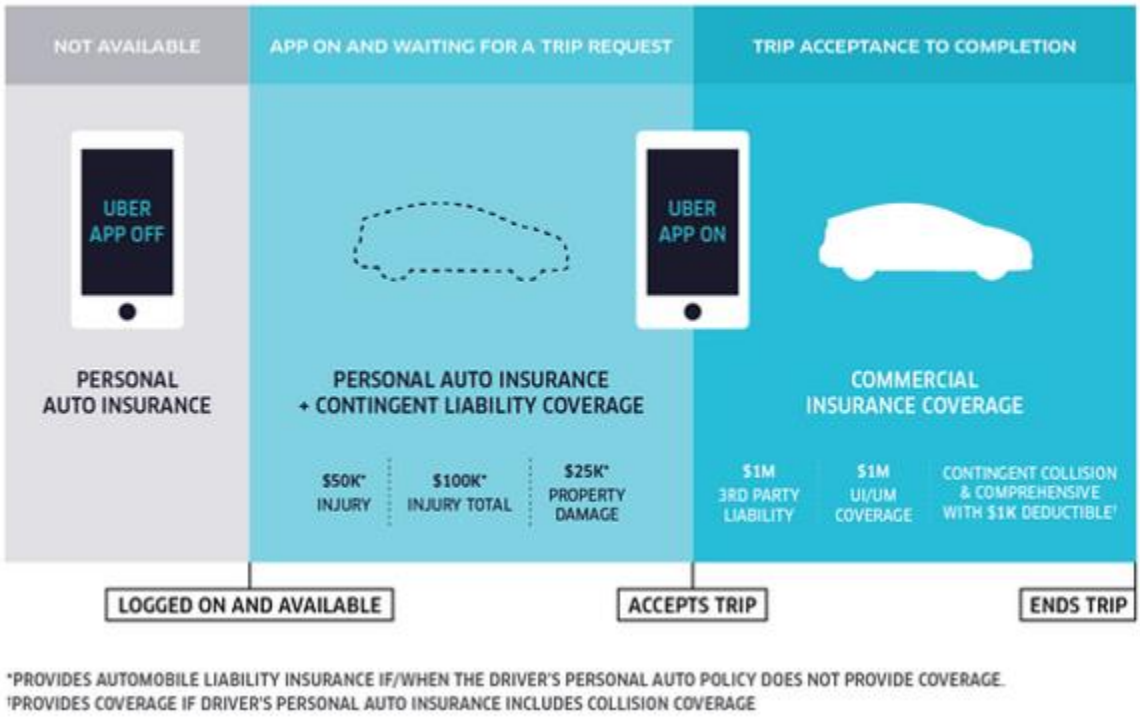
3.2 Sharing economy

The proliferation of social media has also led to the concept of sharing economy, evident in the growth of Uber for carpooling.

Uber[15] is an US company that allows vehicle owners to share rides with other passengers. As of March 2015, the service is available in 55 countries and 200+ cities worldwide. Five reasons contributing to Uber's continued growth[16] include: cheaper car fare, job creation, cashless transactions, reduced congestion and carbon emissions in a world with growing population.

3.2.1 Implications and opportunities

Figure 5 – UberX Ridesharing Insurance Coverage



*PROVIDES AUTOMOBILE LIABILITY INSURANCE IF/WHEN THE DRIVER'S PERSONAL AUTO POLICY DOES NOT PROVIDE COVERAGE.
†PROVIDES COVERAGE IF DRIVER'S PERSONAL AUTO INSURANCE INCLUDES COLLISION COVERAGE

There are a number of complex questions regarding UberX's insurance which need to be sorted out. As the infographic shows, once a driver is logged onto Uber, accidents are no longer covered by personal insurances. Uber provides commercial insurance once a driver is online. However, before a job is found and trip accepted,

15 Uber is a hybrid whose drivers use a mix of personal vehicles (UberX) and commercial limousines (Uber)
16 Due to its phenomenon growth, the taxi industry has been protesting against the company, alleging its use of unlicensed, crowd-sourced drivers are unsafe

the coverage is substantially lower[17]. In addition, there are also grey areas where drivers could fraudulently lodge a claim under personal insurance by hiding his Uber identity.

Ride-sharing services are now big enough to warrant government regulation in the US. In December 2014, the state of California submitted a bill which aims to dismantle the two-tier insurance system. This ensures enhanced driver protection, which also means a new type of product is needed to cover the gap.

If the sharing economy is indeed more than a passing fad, and instead a shift in ownership habits enabled by the Internet, then insurers who are thinking about this early will have a head start, especially with the likely advent of Google Chauffeur[18]. It would also need to revisit its existing policies to take into account extra risks of ridesharing: the pricing should be lower than taxi but would be higher than personal motor and CTP[19] policies. Around the time this essay was written, there are already emerging products on the market that cover both personal and ridesharing needs[20].

3.3 Other threats and opportunities

There are also other implications from the growth of social media, these are:

- **Magnified consumer sentiment[21] (both a threat and an opportunity)** – E.g. an unhappy claimant blogging about an insurer has potential to cause reputational damage. Or, a famous YouTuber sharing positive experiences with her insurer may directly translate to more policy issuances and reduced price elasticity within premiums.
- **Improved understanding of customer needs** – Social media allows companies to feel the pulse of consumers in real time[22], hence increases speed for new product development and decision making
- **Fraud reduction** – Social media can help detect many exaggerated and fraudulent claims. One example is where a supposedly bed-ridden disability claimant were found dancing on a cruise through Facebook[23].

3.4 Summary

In summary, although social media may bring new challenges for existing insurers, it could also open up doors for new product opportunities and improve the way in which insurance is marketed, distributed and administered.

---

17 As shown by the light blue block in the infographic, where compensation is substantially lower. E.g. 50K (for injury claims if accident happen before driver accepts a job) vs. 1M (if accident happens accepting a job)
18 Will the Google car end automobile insurance as we know it? – Jenna Cooke, 2014
19 CTP: Compulsory Third Party Insurance for motorists in Australia
20 A product by GEICO (a large US auto insurer) is launched in Virginia in Mar 15, to cover the insurance gap as discussed above
21 “The State of Social Media in Insurance: Interactions Surge” - InsuranceTech.com, August 2013
22 “Leveraging social media” – PwC retail and consumer issues
23 Example given by a worker’s compensation insurance leader at Suncorp. This is not an isolated example as can be seen from articles in bibliography

4 Web-based technology: implications and opportunities for insurers

4.1 Search Giant: Google

Further, Google is also flexing its muscles in the insurance space. It acquired an insurance comparison site BeatThatQuote.com in UK which then became part of 'Google Compare'[24]. In March 2015, "Google Compare" extended its functionalities and will take on the project of aggregating insurance policies in US[25].

Up until now, aggregators have been successful in UK, but less so in US due to regulatory and business model challenges. Similarly in Australia, large insurers have been reluctant in joining and this has protected the industry from a price war. The idea of an aggregator is not new, however when big players like Google are involved, insurers should stay alert.

4.1.1 Implications and considerations

Aggregator sites can force insurers to compete solely on price, and exacerbate the practice of 'dual pricing', where new businesses are given better prices than renewals.

The lesson to be learnt from the early stages of aggregator evolution in UK is that:

- Winners are those who have strong brands, reputable claim services, highly differentiated offerings, good system integration and web digital capabilities. They also have clear strategy regarding which brand to push through aggregators and which to keep. They have strong optimisation and customer segmentation capabilities and can acquire target customers while maintaining control of loss and expense ratios.
- Losers are those who chased volume over margin, embraced the aggregator model too wholeheartedly, with little regard for profitability.

It is dangerous to underestimate Google's lack of appetite to enter the insurance industry given its scale and intellectual capital including: aggregator sites, user databases, understanding of consumer behaviour, real time traffic information and an experimental Google Chauffeur. However, traditional insurers also have areas of competitive advantage such as: underwriting, liability valuation, disaster and crisis management experience[26], reinsurance and investment expertise that are hard to combine under one roof. The key is to keep on improving these areas of expertise while leveraging digital technology.

---

24 'Google Compare' in UK: https://www.google.co.uk/compare/
25 "Google's Next Move" – Tech Investing Daily, January 2015; https://www.google.com/compare/autoinsurance/
26 For example, if 9,000 homes are destroyed in a tropical cyclone, it still needs to be repaired by a handyman and this cannot be done digitally

4.2 Ecommerce giants: Alibaba, Amazon and eBay

In December 2014, the ecommerce giant Alibaba[27] and social media company Tencent won regulatory approval to acquire stakes in PingAn Insurance[28] in China. The CEO of PingAn predicted that the strongest competitors in the future would not be conventional financial businesses, but technology companies who branch into the finance industry and grab market share quickly. [29]

4.2.1 Implications and opportunities

The collaboration is an experiment for an alternative business model with several advantages:

- Firstly, similar to Alibaba, eBay and Amazon's business models are also built around high volume transactions, where there are vast amounts of capital not tied up in the business[30]. This will provide diversification and liquidity for insurers in stressed scenarios.
- Secondly, ecommerce giants have access to large volumes of customer data which are useful for risk rating, pricing and customer segmentation. For example, user generated feedback scores might be used as a rating factor for credit insurance[31]. Or purchasers of pet goods could be better targeted to optimise advertising spend.

4.3 Summary

In summary, companies like Google and ecommerce giants have begun investing in insurance businesses. Meanwhile web-based technology has enabled them to capture large amounts of consumer behaviour information. Insurers have to find a way of making use of their strengths and leverage the data available from the current explosion in technology devices.

---

27 Alibaba has a large user base in China, accounts for 80% of online transactions with annual sales exceeding both eBay and Amazon combined
28 China's second largest insurance company with net assets of US$461B and annual net income of US$4.9B
29 Alibaba, Tencent chairmen invest in China's Ping An Insurance, Reuters Dec 2014
30 This is different to insurance, which is a capital intensive business
31 An example given by a senior insurance executive in the 2014 ERM seminar – Online credit ratings such as eBay and Uber scores are already used by P2P lending companies like Zopa, whose bad debt ratio is only a fraction of the bank's metrics

5 A sea change?

The disruption to the insurance industry may not come from the individual forces alone, but through many changes that are impacting the industry at the same time.

Perhaps the biggest constraint is one of recognition that a paradigm shift in thinking is required and insurers need to be innovative to stay ahead of the game.

5.1 Example: Blackberry and IPhone

The failure to appreciate a paradigm shift is most dramatically illustrated in the story of Blackberry versus iPhone. In 2006, 50% of all global mobiles sold were BlackBerrys. Today, its market share is negligible. Blackberry had significant competitive advantage a decade ago, most importantly as being the default device for enterprise. The reasons for its demise are largely to do with failing to appreciate trends in consumer demand, its focus on the corporate rather than mass consumer markets and not innovating sufficiently when it had dominant market share.

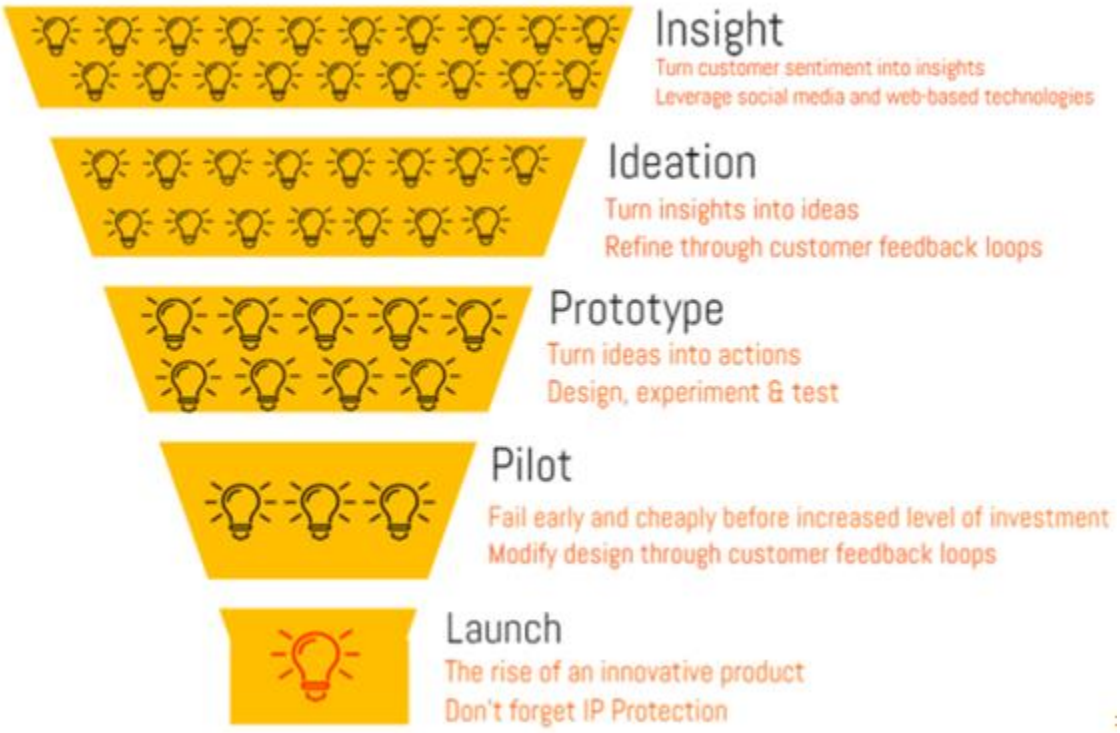
5.2 The need for innovation

Nowadays, mobile internet platforms have made it easier and cheaper for new start-ups to conduct rapid market experiments, to continuously improve products based on real time customer feedback[32] and quickly scale up offerings that work and abandon those that do not.

Existing insurers can also take a similar approach. Insurers such as Aviva and Allianz have invested in "innovation labs" through FinTech[33] events, where selected ideas are in incubation and tested directly in the market with real time consumer feedback. Only the most accepted by consumers survive. This requires a culture that fosters experimentation, well thought out planning and execution as shown in the figure below.

32 Digital distribution in insurance: a quiet revolution – Swiss Re
33 In the UK, there are Meetup groups where developers, designers and entrepreneurs come together to hack on the latest FinTech idea. For the most innovative and breakthrough insurance start-up, Aviva would be offering the opportunity of 3 months incubation to help develop and grow the start-up further'

Figure 7: Innovation Management [34]



34 Credits to web-based Photoshop editor: http://apps.pixlr.com/editor/

6 Conclusion

Social media and web based technology have enabled new business models such as P2P insurance, sharing economy, web aggregators and ecommerce giants to emerge. The SMAC era is capturing, transmitting and storing consumer behaviour information, which could be used to improve the way insurance is marketed, sold and administered.

Rather than seeing the wave of digital change as a threat, embracing it and taking a more proactive stance is likely to pay off. Insurers who utilises social media and web-based technology well, can further enhance their performance in the areas of underwriting, distribution, pricing and claims management. As new start-ups are actively making use of SMAC technologies, existing insurers should too invest in strategic innovation.

To end, it is not the strongest of the species that survives, nor the most intelligent, it is the one that is most adaptable to change and so is with successful insurers in the digital age.

7 Bibiliography

Insurance Disrupted - Crowdsourced Policies and Social Marketing

https://www.linkedin.com/pulse/20140519205122-9487018-insurance-disrupted-crowdsourced-policies-and-social-marketing

Managing innovation and disruptive technology By Nicholas Evans

http://www.computerworld.com/article/2475696/it-transformation/smac-and-the-evolution-of-it.html

Infographic: The Growth of Social Media in 2014 for Financial and Insurance Advisors

http://www.digitalagent.com/social-media-growth/

XL Group Expands Cyber and Technology Insurance with New User-Friendly policy,
Wed 03 September 2014, New York

http://xlgroup.com/press/xl-group-expands-cyber-and-technology-insurance

Optus Yes Cover Insurance: Is it good value?
Wed 02 December 2014, by Alex Kidman

http://www.fatducktech.com/news/optus-yes-cover-insurance-good-value/

What's Your Insurance App-titude? New Mobile Insurance Apps

http://www.csc.com/au/ds/45498/46426-what_s_your_insurance_app_titude

Growing trust, transparency and technology

http://www-935.ibm.com/services/au/gbs/bus/html/Growing_Trust_Transparency_and_Technology.pdf

Technology Insurance - CyberFirst® technology

https://www.travelers.com/business-insurance/cyber-security/technology/cyber-first-claim-scenarios.aspx

The State of Social Media in Insurance: Interactions Surge, InsuranceTech.com, August 2013

http://www.insurancetech.com/data-and-analytics/the-state-of-social-media-in-insurance-interactions-surge/a/d-id/1314735?

Guevara on AngelList

https://angel.co/guevara/activity

Technology Network Security Protection Insurance

http://winleyinsurance.com.au/technology-network-security-protection-insurance.html

Bought by many
https://boughtbymany.com/

Insurance - A Model Ripe for Disruption By Ralph Hazell on 28th April 2014
http://www.altfi.com/globalnews/194

Meet the man who's making insurance sexy - and sociable
http://www.thejc.com/business/business-features/102860/meet-man-whos-making-insurance-sexy-and-sociable

How the 'sharing economy' could disrupt traditional insurance models
By Edward Vukovic - Digital Communications Manager - The Institute | 31 Jul 2014
https://theinstitute.com.au/members-centre/articles/2014/07/how-the-sharing-economy-could-disrupt-traditional-insurance-models

Insuring Risk in the Sharing Economy (Part 3 of 3) | Insurance Chart of the Week
http://insuranceblog.accenture.com/tag/sharing-economy/

Insurance Wake-Up Call: Embrace the Shared Economy Opportunities
Denise Garth, Insurance Experts' Forum, December 11, 2014
http://www.insurancenetworking.com/blogs/insurance-wake-up-call-embrace-the-shared-economy-opportunities-35263-1.html

Insurance Companies' Untapped Digital Opportunity
Tanguy Catlin, Pradip Patiath, Ido Segev
https://hbr.org/2014/03/insurance-companies-untapped-digital-opportunity/

For insurance companies, the day of digital reckoning, Bain & Company, March 2015
Henrik Naujoks, Bodo von Huelsen, Gunther Schwarz and Stephen Phillips
http://www.bain.com/publications/articles/for-insurance-companies-the-day-of-digital-reckoning.aspx

The General Insurance Industry and the Actuarial Profession in 2020
Tony Beirne, Garth Brooker, Mudit Gupta, Suruchi J Singh and Sylvia Wong
http://www.actuaries.asn.au/Library/Events/GIS/2012/GIS2012PaperBeirne-Wong.pdf

Insurance Customers Would Consider Buying Insurance from Internet Giants, According to Accenture's Global Research
http://newsroom.accenture.com/news/insurance-customers-would-consider-buying-insurance-from-internet-giants-according-to-accentures-global-research.htm

Insurance Isn't Safe from Digital Upheaval
https://hbr.org/2014/07/insurance-isnt-safe-from-digital-upheaval/

Alibaba, Ping An, Tencent OK'd for online insurer
http://www.marketwatch.com/story/alibaba-ping-an-tencent-okd-for-online-insurer-2013-02-20

What if Google or Amazon sold insurance?
http://www.lifehealthpro.com/2014/04/15/what-if-google-or-amazon-sold-insurance

Buyers would consider Google, Amazon for insurance needs
http://www.lifehealthpro.com/2014/02/06/buyers-would-consider-google-amazon-for-insurance

Microsoft Security Intelligence Report
http://www.neowin.net/news/microsoft-internet-users-will-double-to-4-billion-worldwide-by-2020

Digital insurance strategies
http://www.postevents.co.uk/digital/static/book-now

All in the delivery – By: Karl Greenlaw, founder and CEO of Brovada 01 Sep 2003
http://www.canadianunderwriter.ca/news/all-in-the-delivery/1002597349/?&er=NA

Evolution of aggregators: Impacts and future challenges for insurers – Accenture
http://www.accenture.com/microsites/insights/Documents/pdfs/RoleOfAggregators_09_10.pdf

Why Is Alibaba's Active User Base Growing at a Fast Rate?
http://finance.yahoo.com/news/why-alibaba-active-user-growing-140641613.html

Google is a 'real threat' to the insurance industry
http://www.insurancetimes.co.uk/google-is-a-real-threat-to-the-insurance-industry/1408126.article

Digital distribution in insurance: a quiet revolution
http://www.the-digital-insurer.com/wp-content/uploads/2014/06/295-sigma2_2014_en.pdf

Google's Next Move – By Tim Conneally, 12 January 2015
http://www.techinvestingdaily.com/articles/googles-next-move/553

Geico launches insurance product for Uber drivers

http://www.ibamag.com/news/geico-launches-insurance-product-for-uber-drivers-21266.aspx

November 2013 FinTech Seminar on Insurance FinTech Opportunities

http://wwfw.youtube.com/watch?v=Wxjy0n6V400

London Insurance Disrupters - Crowd and Social Insurance

Wednesday 30 April 2014 at Barclays Acclerator, London

https://www.youtube.com/watch?v=j5KySKxUglQ

Interview of Alibaba founder Jack Ma by Lara Logan

https://www.youtube.com/watch?v=hLUgbWO1ztk