Mindtree

Hackathon – App Prototype Development

Requirement Specification Document

March 9, 2015

Welcome to possible

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1. Idea – Peer to Peer Insurance (P2PI) Platform

1.1 Executive Summary

P2P (peer to peer) insurance is an emerging area in a crowd source + insurance space where a group of persons (usually related) come together to pool contribution (premium) and payout a claim in the event of a group member suffering a loss.

Regular insurance is bought through various channels like through agent or directly through insurance company's ecommerce website. P2P insurance or social insurance is an alternative to these existing channels. Known individuals or individuals related through a common group (college alumni, sports club etc.) can come together and pool contribution to buy insurance.

Advantages of buying through a social insurance channel for end customers could be

- Contribution refunds in case of lower claims of the group
- Lower deductible
- Better terms of insurance akin to those enjoyed by group policy holders

Proof of concept done in market

It is in its infancy now, with a few startups working on it 2012 onwards, with at least 2 players offering this service in niches. (https://heyguevara.com/home and http://www.friendsurance.com/)

Fundamentally it is the same

Insurance traditionally is pooling of contribution from large number bearers of similar risk and paying out for distribution of a large loss to a small number of members. This was the initial business design for Mutual insurance companies and forms the foundation of Islamic insurance as well. The intermediary (insurance company and brokers) are not supposed to earn money/ generate profits in these models. However, with the evolving landscape I would suspect that mainstream insurance companies would offer a "software platform" to let people manage their risk within regulatory boundaries.

Why mobility

Mobility is going hand-in-hand with most social apps e.g. Facebook, twitter, whatsapp and many other startups which are trying to bring people together to share resources e.g. Uber, airbnb etc.

P2P Insurance

I would like to make a case for a P2P insurance mobile app and showcase it as a niche offering for the emerging social insurance economy. (pl compare it to IOT, internet of things in 2006-07 when it was perceived as not a big ticket insurance but finally UBI, usage based insurance is mainstream with most auto-insurers).

1.2 Users

- <u>Platform User (enrollee) – Mobile Device</u>
- <u>Group administrator – Mobile Device</u>
- Platform administrator – Desktop Application
- Claims administrator – Desktop Application

- Insurer – Desktop Application

1.3 Problem Statement

There is a growing perception among individuals that Insurance is expensive for some personal items like Car, mobile etc. and people are not getting due value of their premiums. Additionally that Insurance companies are making huge profits out of their contributions.

Individuals trust known people to behave responsibly and would like to share a benefit with them

Social insurance start-ups (Guevara, friendsinsurance) are showing impressive refunds and better participant experience

Social media on Internet is emerging as a platform for many applications. Buying behavior is influenced by friends, colleagues and other people connected through social applications (Facebook, twitter etc.)

Insurance companies are not showing significant underwriting profits, instead their major income source is investment income. Despite fraud prevention measures, there is still significant leakage for such claims.

Avenues for increasing revenues, market share are few in a competitive market.

Social insurance promises lower claim ratio, better underwriting experience and tapping the social-networks-on-internet as a new channel

Individual, Insured

Insurance companies, intermediaries

Technology (Mobility)

State, society

Sharing of utilities through internet and more so using mobile devices is gaining traction. Mostly driven by ease of use and confidence in security protocols. More time on internet for personal use is spent on mobile devices than on desktop/laptops (which are primarily used for office use)

State laws for Uninsured and underinsured (in case of auto) imposes social costs to be borne by everybody. Moral hazard for careless driving and using insurance for small claims or unnecessary repairs also increase burden on otherwise responsible drivers.
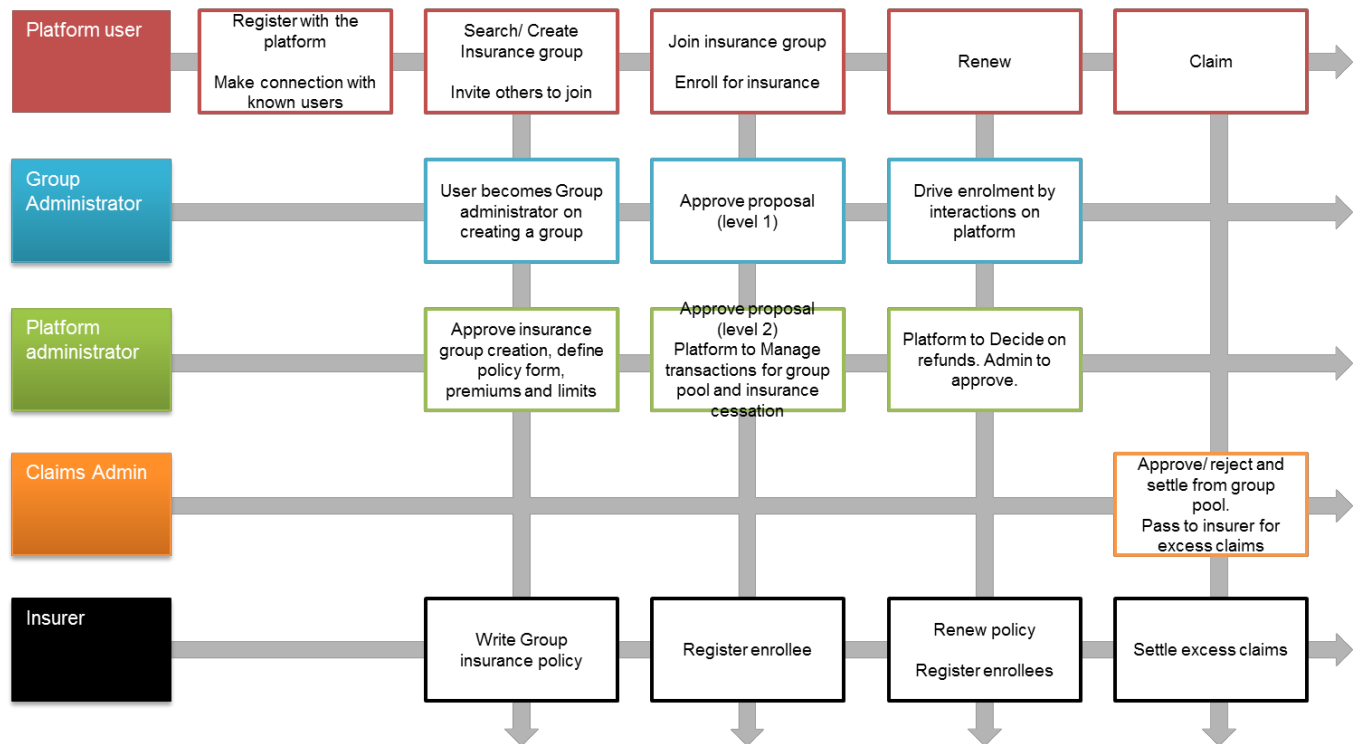
1.4 High Level Business Requirements

Platform user	Register with the platform Make connection with known users	Search/ Create Insurance group Invite others to join	Join insurance group Enroll for insurance	Renew	Claim
Group Administrator		User becomes Group administrator on creating a group	Approve proposal (level 1)	Drive enrolment by interactions on platform	
Platform administrator		Approve insurance group creation, define policy form, premiums and limits	Approve proposal (level 2) Platform to Manage transactions for group pool and insurance cessation	Platform to Decide on refunds. Admin to approve.	
Claims Admin					Approve/ reject and settle from group pool. Pass to insurer for excess claims
Insurer		Write Group insurance policy	Register enrollee	Renew policy Register enrollees	Settle excess claims

1.4.1 Sign up and Insurance group creation – Mobile use case

Sign up → Connect with other users → Share comments, multimedia → Receive and respond to messages/ notifications → Create "Insurance Group"

- User should be able to sign-up on the portal. Sign-up to capture information like – name, age, person identification (email, mobile), address, place of work, school/ degree, ownership of goods (car, mobile phone, holiday boat etc.)
- User can connect with other users on the portal
    - Search other users using name, place of work, school etc.
    - Can request for a connection
    - Can confirm a request for a connection
- Should be able to publish messages, pictures and videos on a personal page.
    - The page can be viewed by connected users or the user can explicitly broadcast it to selected groups/ people, in which case they will get a notification
    - Facility to receive notifications from connected people and for request from unconnected people on the portal
- User can start a new "Insurance group". The insurance group will capture the following details

- Class of assets to be insured (car, mobile phone, laptop, motorbike etc.)
- Minimum enrolment size (by asset value, by count of participants etc.)
- Range of asset value (age of asset, market value, model etc.)
- Geo-location (geographic area which will be covered, country, state, city)
- Owner profile range (age group, occupation, residence area etc.)
- User can submit the insurance group for approval of the platform owner (refer use case – 4)

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Home page

New Insurance group – Penn State (class of 2010) mobile coverages

Mary J Blige created a new group
Attractive coverage for mobile phones, tablets, laptops. Discounted premiums for class of 2010.

Allstate provide excess coverage for your yachts and holiday water boats.

Exclusively for residents of Brigade Palmsprings.

Impressive track record of refunds to over 85% of enrollees across out motorboats insurance plans in 2014

Harry Potter
Computer scientist at Vmware

Joined a new Insurance group – Household coverages for Colleagues at VMWare

Hi, I just insured some of my household stuff – microwave, LCD TV and a music system. A small sum for a great peace of mind. Do try.

Jack Reacher
Sr. Professor at Penn State

Menu

P2PI

Michael Odombe

Sr. Consultant at Mindtree Ltd.

Connections

Groups

Policies

Wallet

Claims

Draft forms

Settings

Logout

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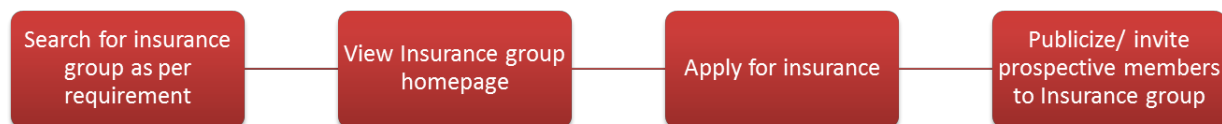nds to over

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system. A small sum for a great peace of mind. Do try.

Jack Reacher
Sr. Professor at Penn State

1.4.2 Apply for insurance – Mobile use case

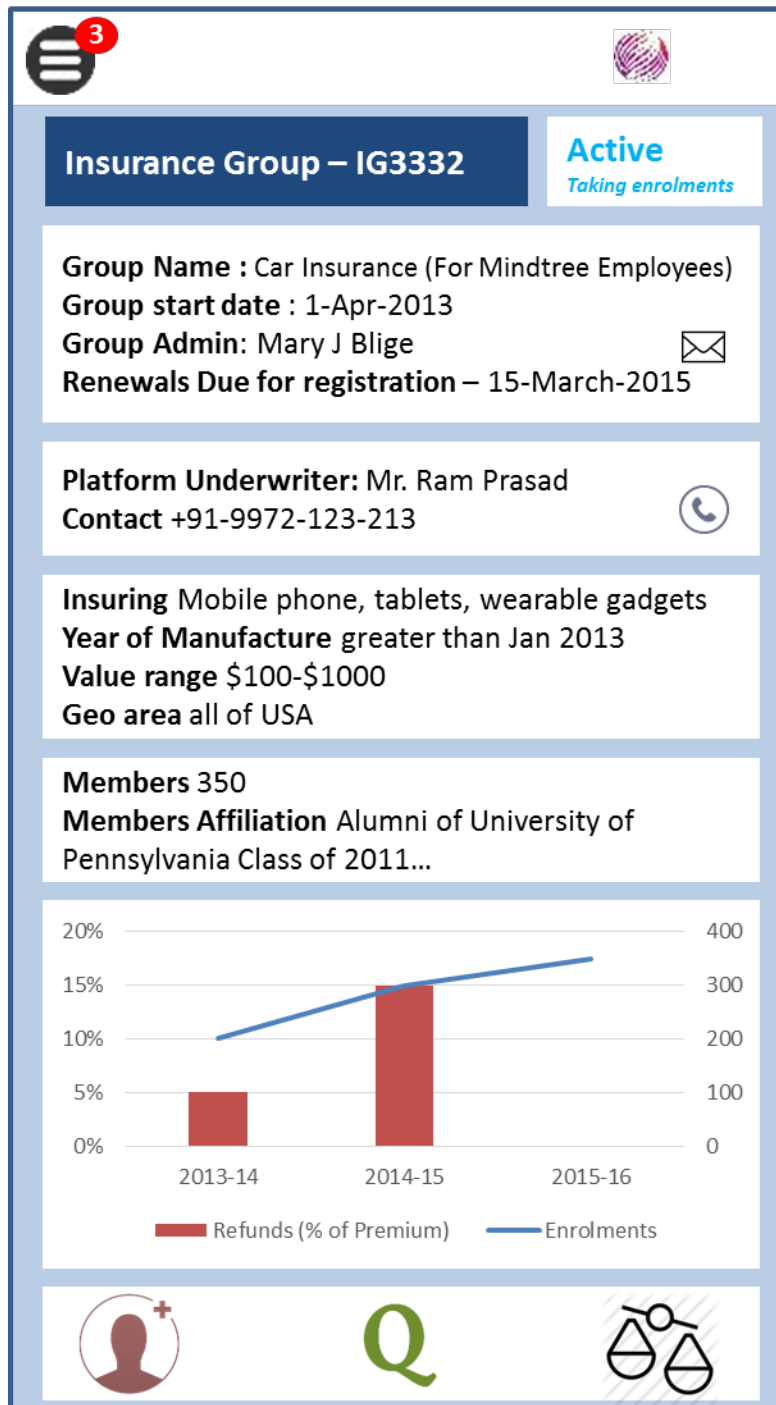| Search for insurance group as per requirement | View Insurance group homepage | Apply for insurance | Publicize/ invite prospective members to Insurance group |

- User can search insurance groups by various criteria – asset class (car, mobile etc.), range of coverage, geo etc.
    - User can see a list of groups matching the criteria. User can filter the list using various criteria e.g. – size of group by participants, created date etc.
- User can select and view any insurance group's details. Insurance group will be a separate portal page on the platform.
    - The form and insurance group provisions (what kind of insurance will be provided) will be available as part of the fixed "insurance group" page
    - The insurance group's enrolment stats will be displayed – number of enrolments, date of inception, claims settled, current group surplus (as % of premiums collected), refunds trend over past years
    - User can apply for insurance (Subscribe to the insurance group) by filling up the proposal form from the page (the proposal form will be an online HTML form which can be filled and submitted online)
    - Credit card/ payment account details will be captured but not charged to the customer, till the application is approved.
- Post the group is created and approved by the Platform Admin, Adding minimum number of participants/enrollees (who are platform users) to the "insurance group" will be done by the group administrator
    - The group administrator can invite applications from the prospective people from his/her connects for applying for insurance. The message will contain the form predefined by the platform admin for policy in this group and the salient features of the plan on offer. Invitations can also be sent for preexisting groups, in which case the performance of the plan will also be part of content.

Insurance group info screen

Insurance Group – IG3332

Active
Taking enrolments

Group Name : Car Insurance (For Mindtree Employees)
Group start date : 1-Apr-2013
Group Admin: Mary J Blige
Renewals Due for registration – 15-March-2015

Platform Underwriter: Mr. Ram Prasad
Contact +91-9972-123-213

Insuring Mobile phone, tablets, wearable gadgets
Year of Manufacture greater than Jan 2013
Value range $100-$1000
Geo area all of USA

Members 350
Members Affiliation Alumni of University of Pennsylvania Class of 2011...

- Refunds (% of Premium) ▬ Enrolments

Enroll   Quote   Compare
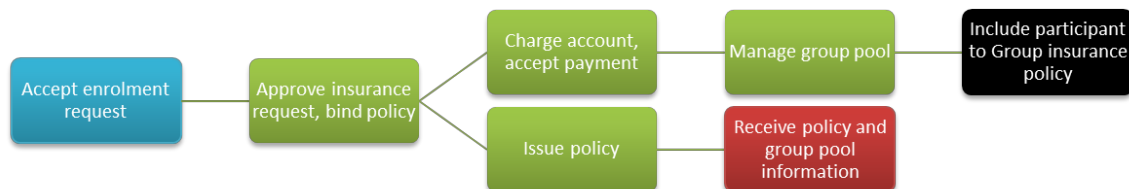
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Quote screen

Enroll   Compare

### 1.4.3 Enroll participants – Desktop use case

- The requests for enrolling a participant will first come to the group administrator and he can approve/ reject the application based on fit to the application to the group profile. (an indicative score of the risk will be calculated by the system based on the entered parameters and shown to the group administrator.)

- Upon approval of the request, the request will be forwarded to the platform administrator (or to the LoB handler for the region, to be configured in the system) for final approval and issuance of the policy

- The proposer's credit card or payment account will be charged for the premium decided upon. Alternatively (if user does not have a credit card), user will be required to pay (through online transfer, cheque etc.) for the cover Backend portfolio management as a follow up process. The application will on hold till payment is realized.

- Upon approval of the platform administrator (or the LoB handler) and payment of the premium the policy will be issued to the proposer

Fund Management (post policy issue)

- The premium will be split into 3 components
- Base insurance policy premium
- Group pool contribution
- Platform administration fees
- The premium for the respective accounts will be transferred to make the policy provisions effective.
- The cutoff date of the group pool assessment will be fixed.

1.4.4 Platform admin activities – Desktop use case
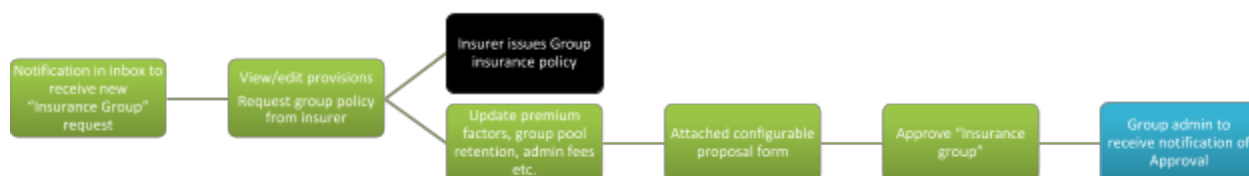
- Facility to receive approval requests of "Insurance groups" from group administrators

- Ability to view/edit the "insurance group" details – the provisions etc.
- Admin can review and approve the insurance group (which would enable the group administrator to invite/add enrollees to the group)
    - To approve the admin has to decide on the premium factor applied per dollar of coverage requested for the class of products proposed.
    - Retention % of the funds per participant for the "Group Pool"
    - Retention % to be spend to buy the insurance policy (insurance policy provisions to be reviewed and frozen – deductible, sum insured, premium quoted by prospective insurers/ insurance admin etc.)
    - Markup, administration fees to be collected from each participant of the group
- Admin would attach a customized form to be used by participants to apply insurance under this "insurance groups" provision (as requested by group admin).
- Generate notification to group admin of the premiums range and provisions (if modified)

1.4.5   Claims – Desktop use case

- In the event of a loss and that a claim is reported by a policyholder, a claim form will submitted by the policyholder through the application. It will capture information like incident date/time, photos of the property involved, user signature (authentication/ signature). The mobile application will have a provision to select the policy under which the claims is filed and provide some default validation criteria (like policy validity etc.) to check on the genuine claims
- The claim request will go straight to the claims team of the platform (claims admin).
    - Claim admin will assess the claim and take a judgment of the genuine aspect of the claim and approve or request for further information through the platform.
    - Upon approval of the claim the claim amount will be paid to the policy holder
        - The claim amount reimbursement would take place from the group pool subject to availability of funds.
        - If the group pool is exhausted, the insurance pool will be approached and a investigation might be carried out before settling the claim.
- The group pool will be reduced by the claim payment amount, once payment is done.

1.4.6   Renewals – Desktop use case
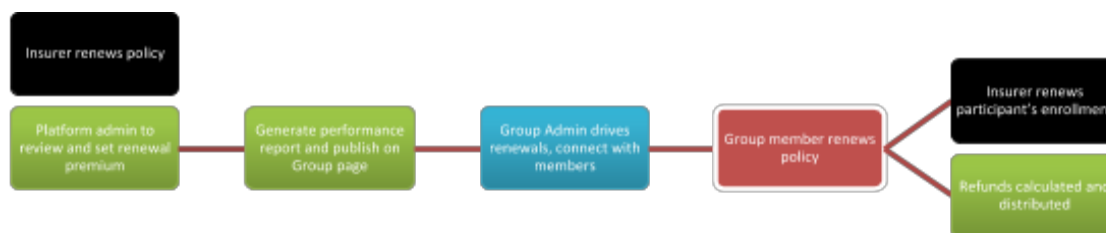
- Upon policy renewal (it could be a fixed period of the year, a certain month or such) the policyholders will get a summary of the pool performance over the past year
  - The performance report would consist of the - year start group pool, year end group pool (balance) , claim amount settled and premium due this year.
  - The group member will pay the entire renewal premium upfront
  - On the cutoff date the contributions will be pooled again (not all participants may renew, or new participants may come into the group since last year) and the initial group pool will be topped up as per the limits set by the underwriter. Any surplus in the group pool will be redistributed to the group members as refund.

1.5 Relevance to Customer's Business

### 1.5.1 Why it may work? (For an insurance company)

- Insurance works with a large number of contributions.
- Insurance premium is decided based on characteristics of risk presented by individuals. Distribution of risk to a large number of participants ensures predictable underwriting experience.
- Insurance is not effective in a small group, as few bad claims can outnumber the funds collected as premiums. On the other hand large groups tend to give a free ride to "bad" risks at the cost of "preferred" risks
- Case in point – Usage based Auto insurance (enabled by sensors tracking driving behavior) rewards responsible driving behavior
- Individuals generally tend to behave responsibly in Social media context
- <u>Social groups of like minded responsible individuals, who would like to get benefit of better risk management can potentially buy insurance together</u>

Traditional model

- Insurance company manages the entire pool and leaves deductible to be paid by policy holders for small incidents
- If there is better underwriting experience, policy holder does not get back the benefit (except for NCD scenarios)
- Moral hazard exists for people to claim for fraudulent reasons or with respect to take care of the asset responsibly
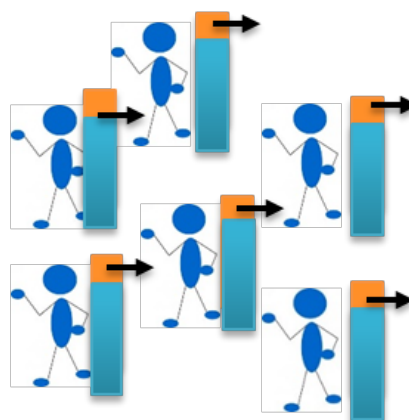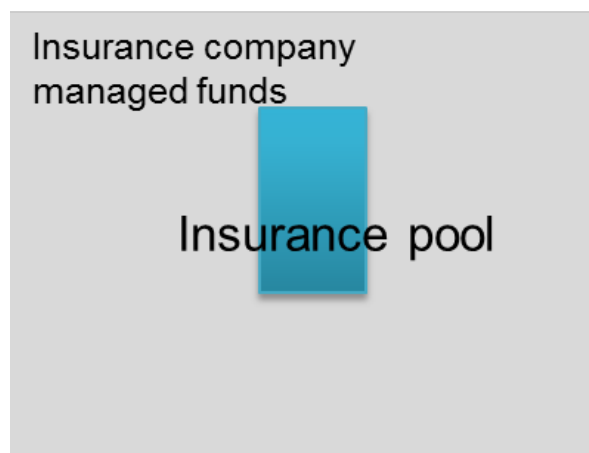
Deductible borne by individuals

Group of family friends

Group pool

Group of colleagues

Group pool

Deductible borne by group fund
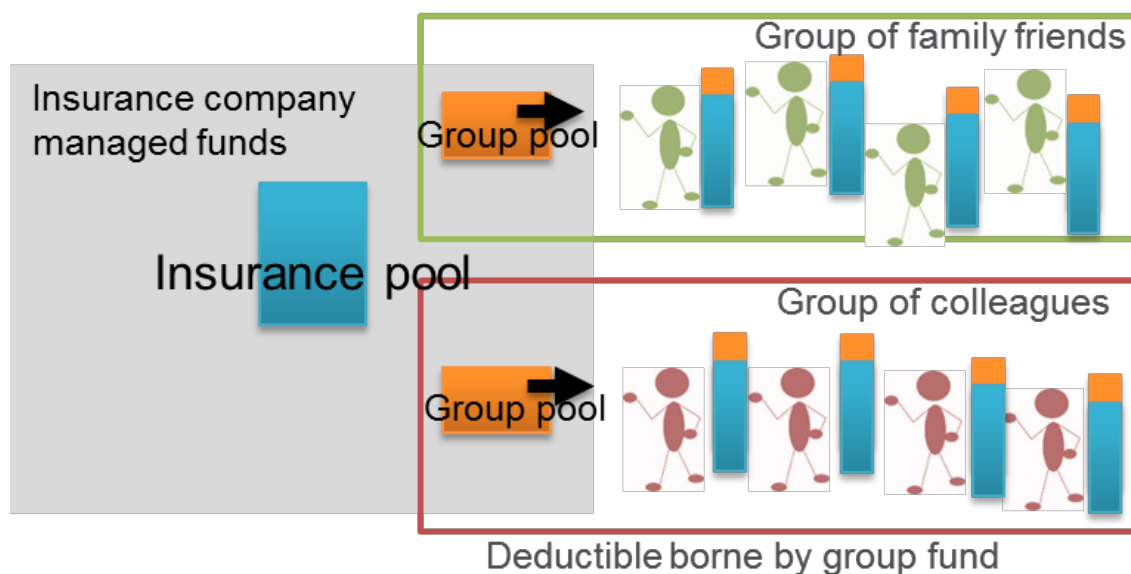
P2P insurance model

- Insurance company manages the entire pool and manages a Group Pool by potentially pooling a higher deductible.

- Claims are first paid from the Group Pool and once that is exhausted paid from the larger insurance pool

- If there is better underwriting experience, and funds are left in Group pool - policy holder gets back the benefit as refunds on renewal

- **Moral responsibility** exists for people to take care of the asset responsibly as they are potentially known to other socially connected group members

1.5.2 What is not Social insurance

- Will not offer significant premium benefits. The outgo of premiums per year to buy comparable coverage will not be drastically different. For example – if average cost of car insurance with leading insurers is ~$450, it will continue to be the same

- Social insurance will not lower coverage. Coverage will be the same, it would still carry the same own damage, third party liability, uninsured/ underinsured coverage etc.

- Regulatory requirements (in many geographies) for third part insurance coverage etc. will still need to covered. Social insurance cannot do away with these obligations

- Applicable to all – although custom pools are created by many in the same trade etc. and applies to businesses and individuals both, but social would largely target insurance for individuals and their assets to begin with

1.5.3 What will be different?

- The purchase process is more akin to an enrolment in Group Policy than buying an individual policy. There will set renewal dates and anybody entering the group middle of the year, can contribute on a pro-rated basis (refunds will be prorated too)

- Underwriting criteria may evolve to capture social data of an individual

  - Number of connections

  - School/college, workplace, community affiliations etc.

  - Social activity - frequency of sharing personal updates with contacts etc. frequency of logging into view comments, reply to others' comments etc.

  - Age/period on social accounts like Facebook, Linkedin etc. (active since last 5 years etc.)

1.5.4 Benefits for insurers

- Brings down the cost of running the business significantly – cost of new business will go down with a self-propelling social channel
- Helps the customer to scale up the business significantly – Social economy on internet is growing. It could become a major source of business in next decade
- Delivers new value prop to my customer's customer
- Either it solves existing pain points – promises <u>lesser claim frauds and increased renewal loyalty</u> more than any other current mechanism on product design side
- Delivers a new experience – social insurance has just begun. It is a new experience for existing customers too
- Creates a new channel – Social insurance has potential to become a new channel

1.6 Data Sources

- news articles / info sources
  - http://thenextweb.com/uk/2014/07/01/guevara-revolutionary-p2p-car-insurance-service-launches-uk/
  - http://www.marke2ing.com/friendsurance-bringing-the-original-idea-of-peer-to-peer-insurance-back-to-life
  - http://www.economist.com/blogs/schumpeter/2012/06/peer-peer-insurance
  - http://www.atelier.net/en/trends/articles/p2p-insurance-next-stage-disintermediation_432068
  - http://proteanrisk.com/insurance-innovation-the-emergence-of-new-peer-to-peer-models/
  - http://www.friendsurance.com/about.html
  - http://p2pfoundation.net/JFloat
  - http://www.quora.com/Is-peer-to-peer-insurance-feasible
  - http://p2pfoundation.net/P2P_Insurance
  - https://idcubed.org/home_page_feature/network-centric-insurance-for-sharing-enterprises/
- applications
  - https://relayrides.com/
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  - https://providence.solutions/#/tab/providence
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- enablers
  - https://heyguevara.com/home
  - https://www.stellar.org/
  - https://ripple.com/
  - bitcoin

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