



**WORLD BANK GROUP**

# Inclusive InsureTech

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17 November 2016

# The essence of insurance

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## ■ Insurance consists of

- Flow and transformation of information
- Flow of money

## ■ Based on trust

- Client trusting insurer
- Insurer trusting client

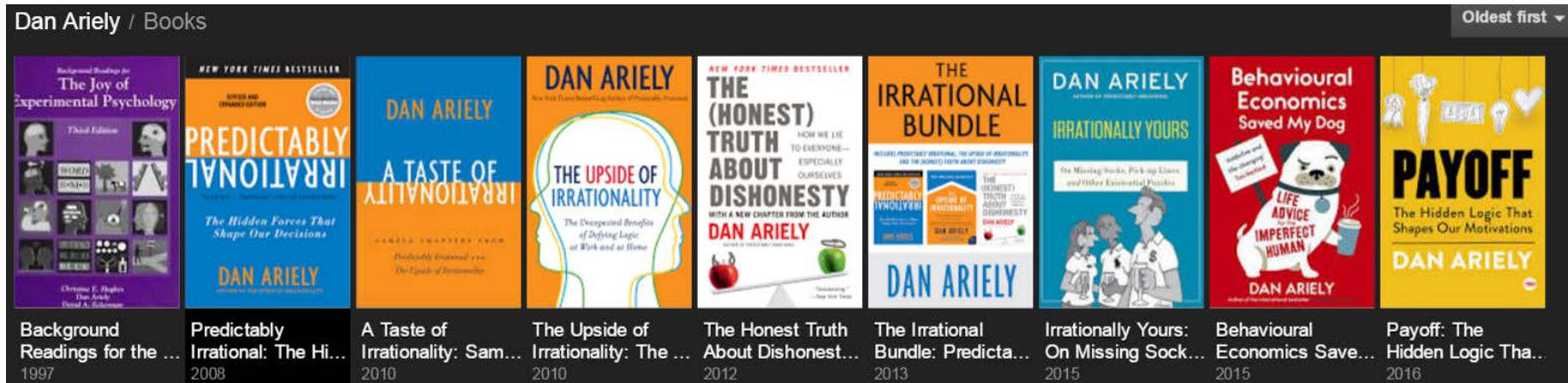
## ■ Nourished by a legal framework

- Providing a fair, safe and stable environment
- Balancing information asymmetries
- Securing enforceability of rights

## ■ Perfectly digitizable?

- How much **paper** is necessary to conduct insurance business?
- How many **people**?

# What Dan Ariely thinks of insurance (as we know it)



"If you try to create a system to bring out the worst in people, you'd end up with one that looks a lot like the current insurance industry."

*Lemonade*

The World's First P2P  
Insurance Company

Instant everything. Killer prices. Big heart.

# Disruptive game changers (1): Peer-to-Peer insurance

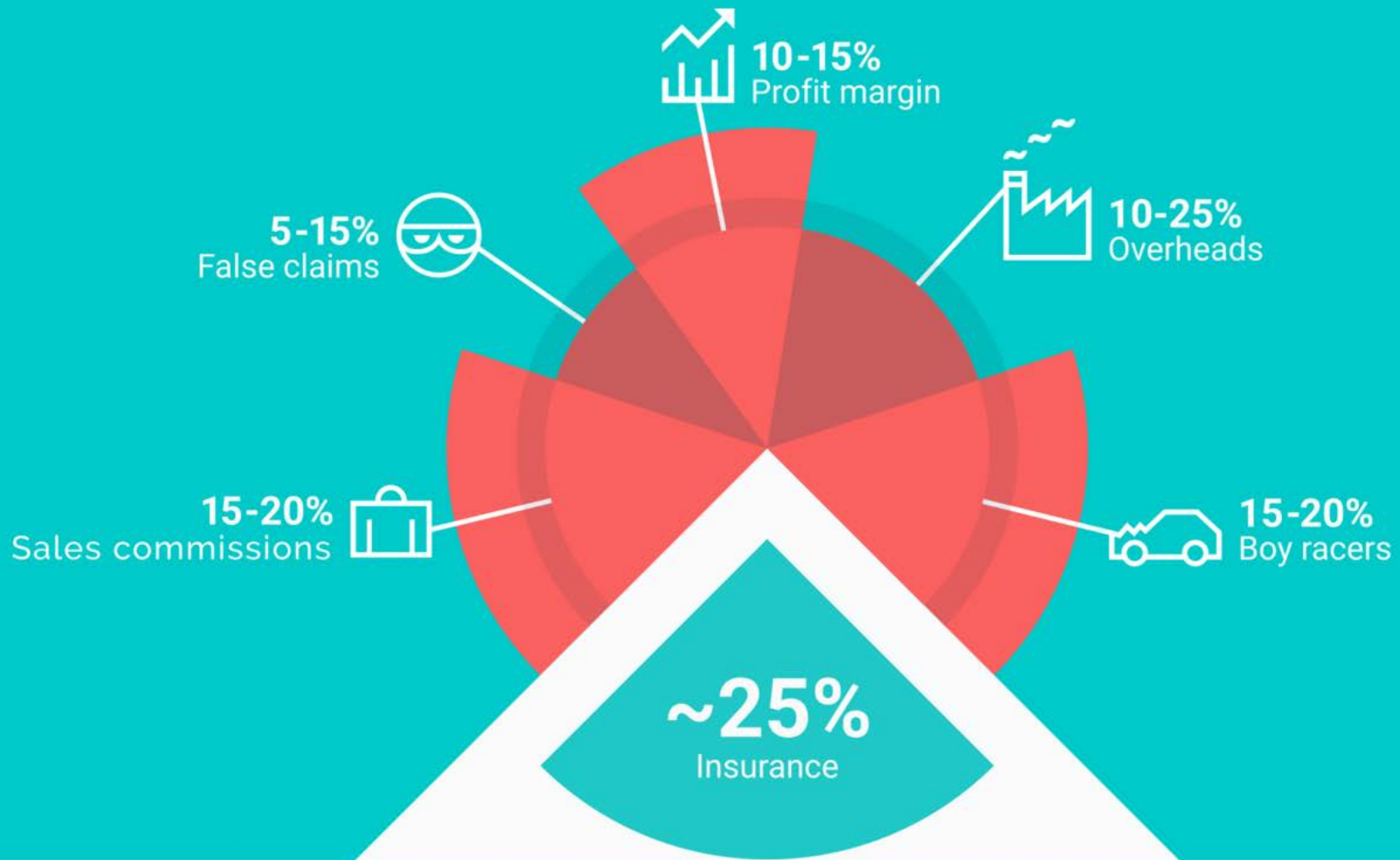
## ■ What is it?

- Organized solidarity among people who share
  - Trust
  - Insurable interests
- Supported by technology
- Based on different models (intermediation or underwriting)
- Akin to Takaful
- An idea whose time has come?
  - Friendsurance (Germany) first known example in the West (2010)
  - Today a dozen different ventures

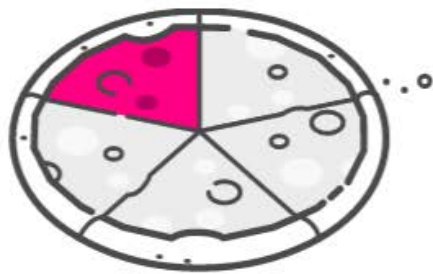


## ■ A case of reverse innovation?

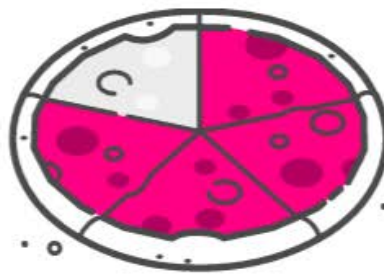
# You're currently paying for:



Source: <http://inspool.com/boyracers/>



A **transparent 20%**  
fee to run everything



We pay claims  
**super fast**



If there's money leftover,  
we **give it back to causes**

Source: <https://lemonade.com/>

The screenshot displays the Teambrella web application interface. At the top, the navigation bar includes the Teambrella logo, links for COMMUNITY, BLOG, and FAQ, and a user profile for Peter Baker. Below the navigation bar, a header section shows the current network (testnet), a selected claim (Clever Earl - Chrysler PT Cruiser 2005), and a coverage status of 100%. A balance of 350 mBTC (~\$181) is also displayed. The main content area is titled 'All Claims \ Claim 1 (Paul Taylor - 29 May 2016)' and features a 'Voting: Reimbursement' section. A progress bar indicates that 80% of the vote has been cast. Below the progress bar, the current vote is shown as 80% (\$800) and the team's current decision is 81.9% (\$819). A sidebar on the left contains links for TEAM, Me, Teammates, Claims (selected), Rules, and Messages. A notification box at the bottom right states: 'Payments are processed in BTC. The amount to be paid is fixed upon closing of voting.'

Source: <https://teambrella.com/blog>



## CUSTOMER POWER - COMPARE US WITH OTHERS

TONGJUBAO	OTHERS
If my community does not cover the risk the way I need it, I can <a href="#">start</a> discussing it on the Community forums and ask for a vote to change the way it protects us.	I can do nothing
If I feel a new type of risk is not covered, I can raise the subject in the forum and propose the creation of a new Community to protect this risk.	I can do nothing
If I think demands are rejected that should have been accepted, I can ask for a majority vote to change the rule that <a href="#">result</a> in this category of demands being rejected.	I can do nothing
If my opinion is not shared by the majority of community members, but a significant minority agree with me (several hundreds or more), I can form an independent community with TongJuBao's support to cover our group needs and beliefs.	I can do nothing

Source: <http://tongjubao.com/en/customer-empowerment>

# Disruptive game changers (1): P2P (continued)

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## ■ Can it balance the numbers?

- Risk pooling requires the large numbers - trust only works in small numbers

## ■ Conventional insurance “brings out the worst in people”

- “insurers do everything to deny claims”
- “clients do everything to (fraudulently) maximize their payouts”
- Alignment of interest even possible?

## ■ Social media has changed the concept of community

- Technology made our networks wider and more diversified (geographically and socioeconomically)
- Technology is reducing our acceptance of the conventional way of getting insurance (fill forms, mail, and wait)

## ■ The disruptive promise

- Bring back trust, alignment of interest, empowerment, and good old solidarity
- Reduce cost







# Disruptive game changers (2): blockchain

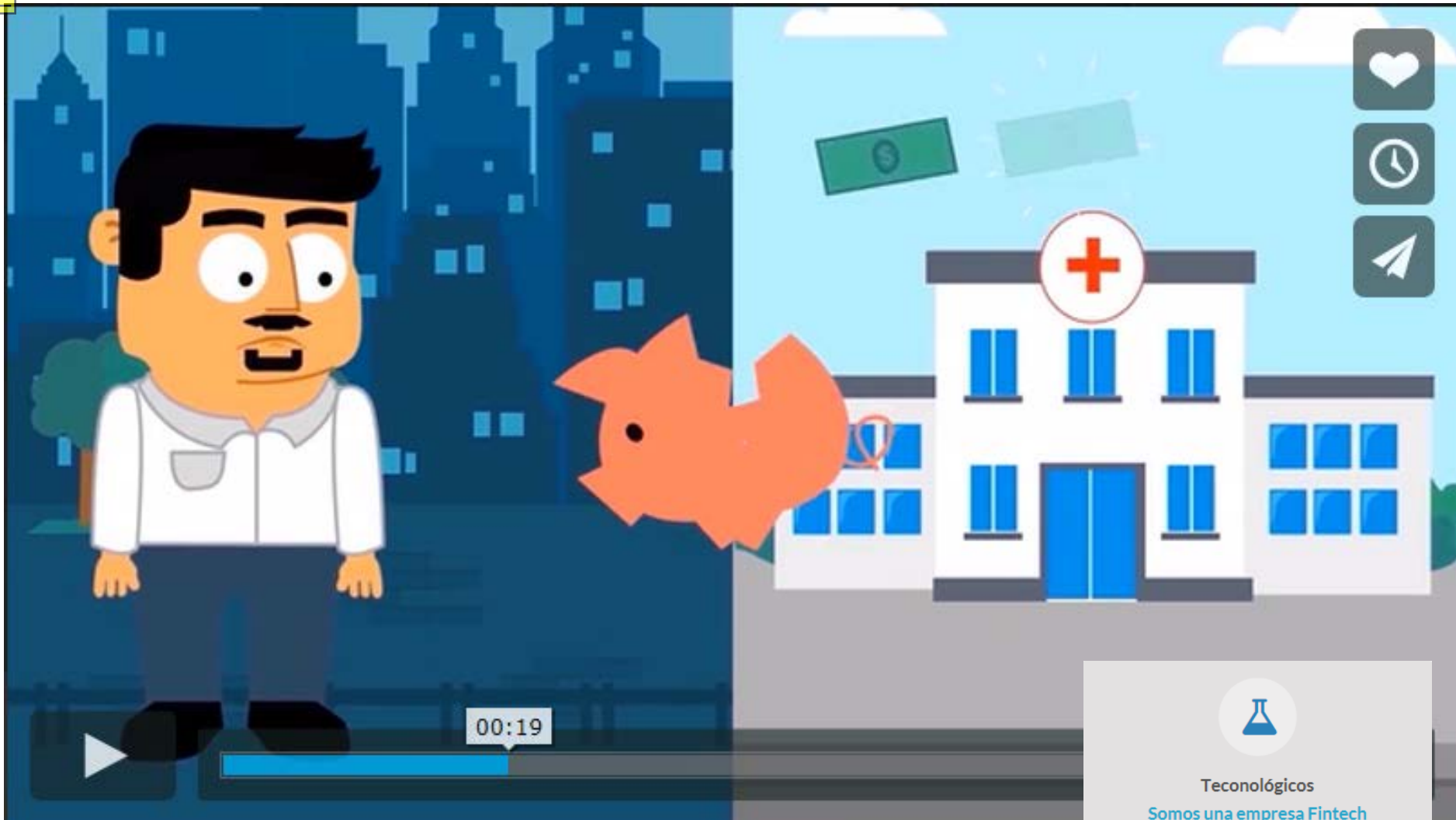
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## ■ What is it not?

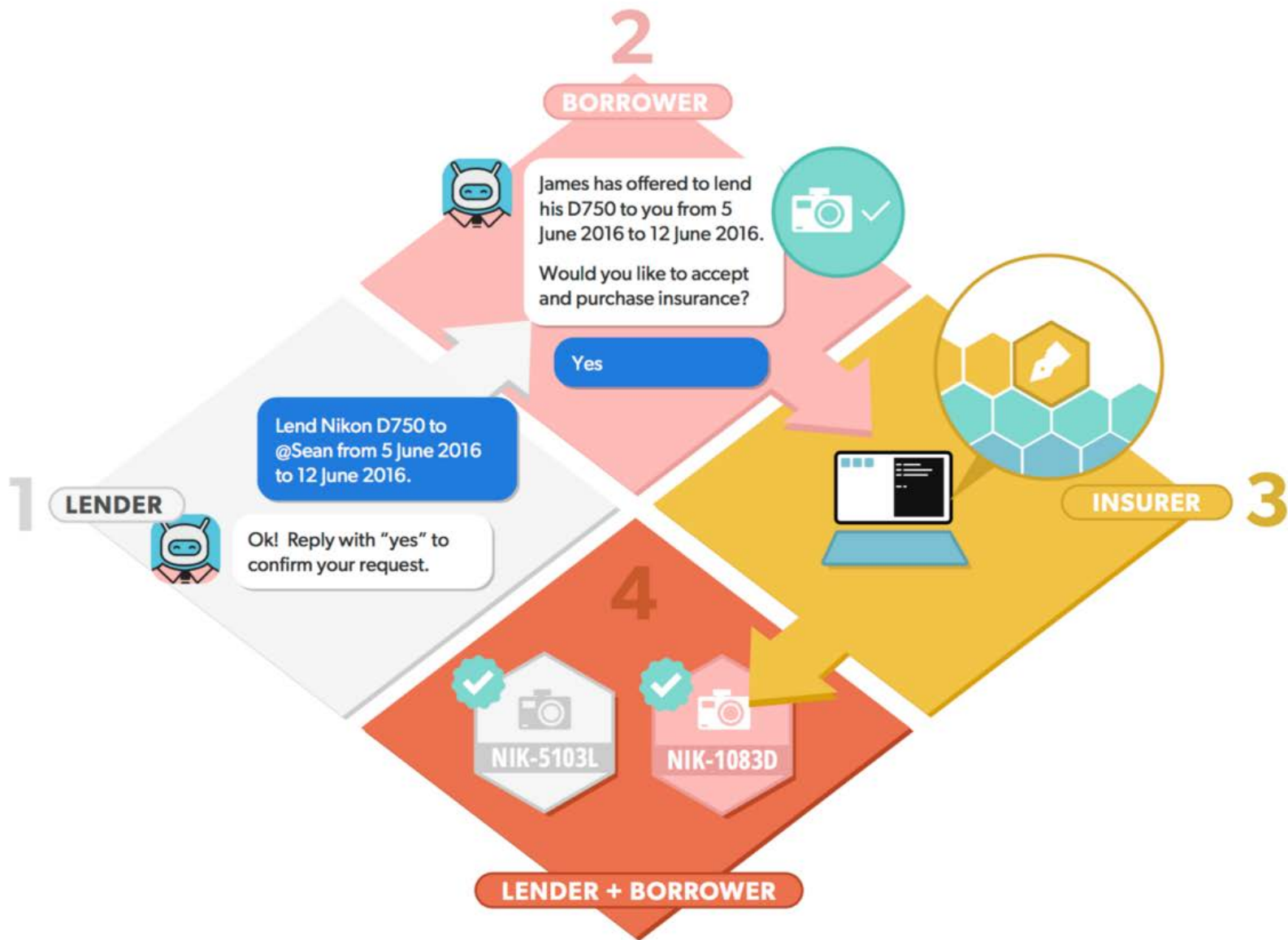
- Blockchain ≠ Bitcoin
- Instead, blockchain technology provides a decentralized ledger of transactions involving digital assets that is transparent and protected
- Blockchain = internet of assets and transactions
- Blockchain eliminates the need for a middleman (e.g. bank)
- The digital assets can be Bitcoins but also property titles, insurance policies, entitlements to health services or car repairs
- Blockchain can make payments conditional to use
- Insurance policies can be transformed into “smart contracts”

## ■ Smart Contracts

- Can execute themselves without human intervention
  - Example: death certificate uploaded ➡ life insurance payment
  - Example: weather index triggered ➡ index insurance payment
  - Example: flight cancelled ➡ payment of corresponding insurance



Source: <http://consuelo.mx/index.html#>



Source: <http://blog.stratumn.com/unveiling-the-lenderbot/>



## Disruptive game changers (2): blockchain (continued)

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### ■ The nerdy version of P2P?

- Blockchain aims to create communities of unlimited size where transactions are trusted even if members don't know (or trust) each other

### ■ The disruptive promise

- Replace trust as we know it
- Disintermediate
- Reduce cost – to the extent of making microinsurance viable (even in USA)

# Disruptive game changers (3): insurance on demand

## ■ What is it?

- Insure what you want when you want ...
- ... conveniently and at reasonable cost

## ■ Reflects growth of “sharing economy”

- AirB&B, Vrumi
- Lending / borrowing tools, bikes,



## ■ But also other trends

- Infrequent use (e.g. of cars)
- Omnipresence of smartphones with cameras and geolocation
- Telematics
- Online sales



OVER

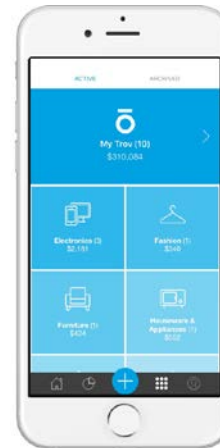
\$8.5 BILLION

WORTH OF ITEMS ADDED

OVER

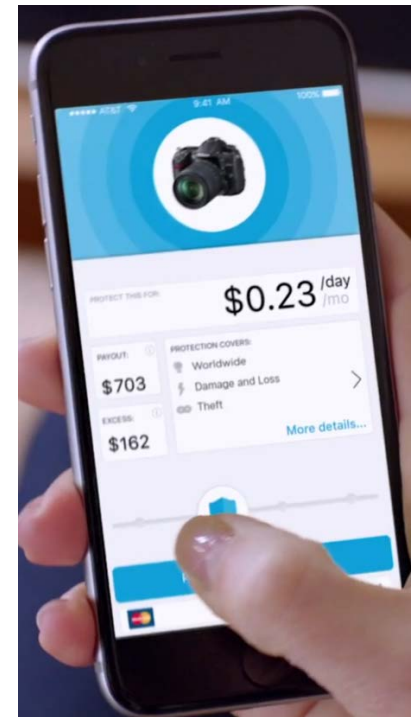
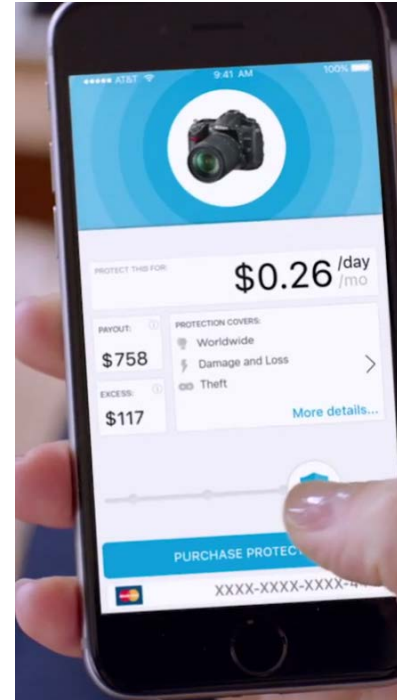
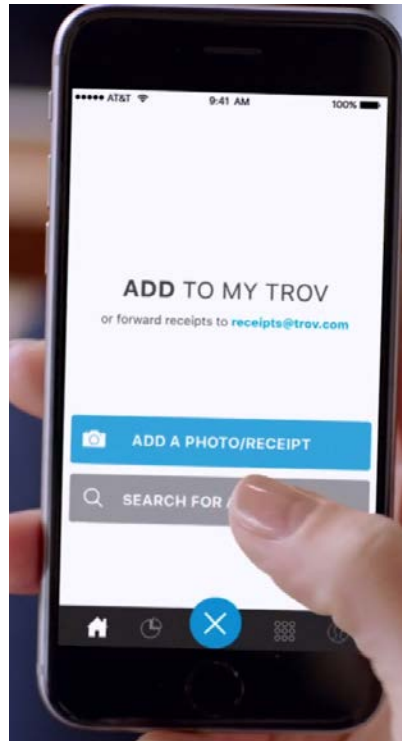
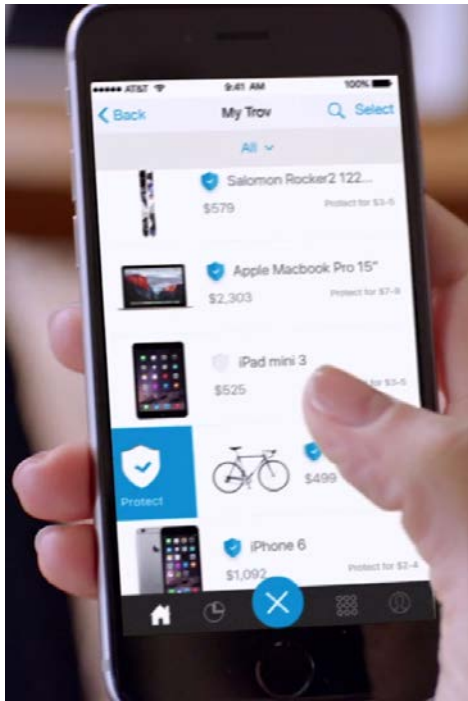
940,000

ITEMS ADDED



Cover





Source: <https://www.trov.com/>



# Disruptive game changers (3): IoD (continued)

## ■ “Sachet-principle” applied to insurance

- Not just in respect of lump sum premium payment
- Also in respect of decisionmaking effort
- Make high-volume-low-margin business model (example: pre-paid airline) work for insurance

## ■ Not altogether new to insurance

- Best example: travel accident insurance



## ■ Long known in classic Microinsurance

- SafariBima of Kenya Orient (2008)
- Dengue Fever insurance of ACA Indonesia (2010)
- Seed replanting guarantee insurance ACRE Kenya (2014)



## ■ The disruptive promise

- Make insurance part of everyday life by reducing hassle and cost and being client-centric

# Disruptive game changers (4): concierge distribution

## ■ What is it?

- Price comparison 2.0
- (Plus: analyzing your insurance needs (“insurance robo-advisor”))
- (Plus: centralized convenient management of all your insurance, including premium payment)
- (Plus: claims handling support)

BrightPolicy

CLARK

policybazaar  
Compare. Buy. Save.

## ■ What drives it?

- Omnipresence of smartphones
- Clients’ desire to be in control
- Clients’ desire for more (cost)efficient insurance advice and management
- Clients’ increasing expectation of immediate transactions (via apps)

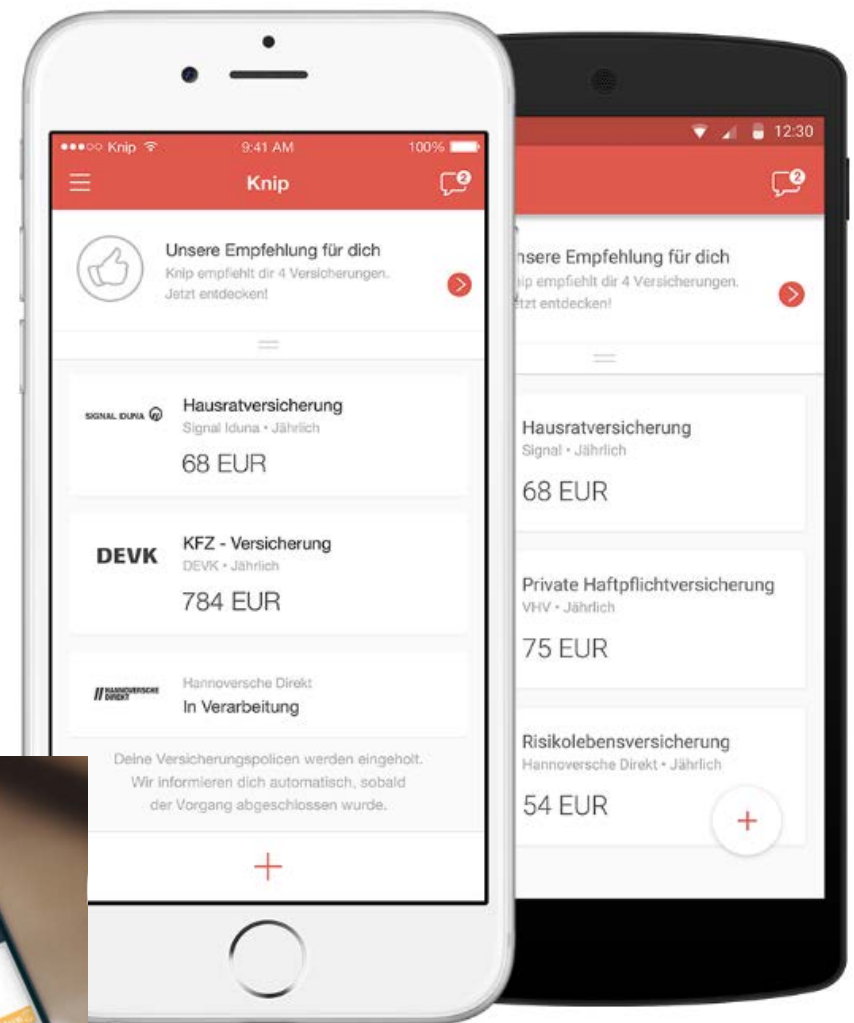
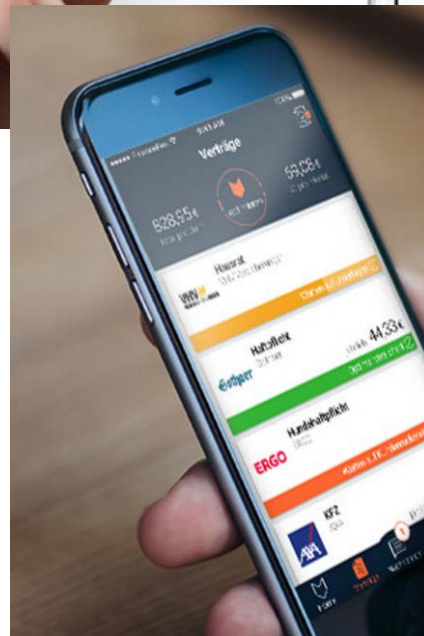
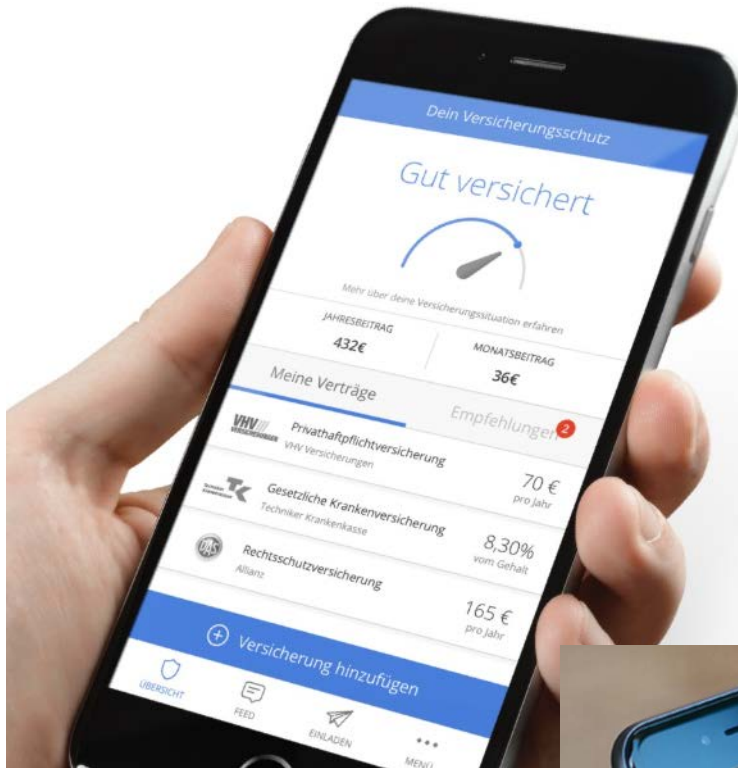
GetSafe

## ■ The disruptive promise

- Intensify competition through comparability
- Make insuring easy – and cheaper
- Clients meet insurers at eye level, leading to gradual reduction of distrust

Knip

FinanceFox



Sources:

<https://www.financefox.de/>

<https://www.knip.de/>

<https://www.clark.de/de>

# Disruptive game changers (5): radical digitization and AI

## ■ What is it?

Shift Technology

- Avoid anything physical – especially paper – to be quick and cost efficient
- Automate processes (the democratization of index insurance)
- Have interfaces to accommodate a wide variety of (distribution) partners
- Make intelligent use of whatever digital data you can get

## ■ Analytics and artificial intelligence / machine learning

- Replace traditional marketing
- Replace traditional underwriting
- Price more accurately
- Replace traditional claims assessment

TYCHE

{CARPE DATA

 **CAPE**  
ANALYTICS

 Ladder

**PLEX.AI**  
Insurance. Re-Engineered

**FABRIC**  
Simple affordable life insurance

众安保险

 **WORLD BANK GROUP**

Enter a few basics to see your quote in seconds.

I am a  FEMALE  MALE born on mm-dd-yyyy.

I'm      feet      inches tall and weigh      pounds.

I am a  NON-SMOKER  SMOKER 

My zipcode is 94025. My overall health is     

SEE QUOTE 



# Fight fraud with AI

65,043,972

INSURANCE CLAIMS ANALYZED TO DATE



# Disruptive game changers (5): digitization and AI (cont'd)

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## ■ The disruptive promise

- Reduce distribution and administration cost dramatically
- Reduce time to market for new products dramatically
- Reduce service turnaround time dramatically
- Mine client data for risk profiles and preferences
- Harness new distribution channels

## ■ The disruptive threat

- Commoditization of insurance
- Shift of power towards owners of client data and transactions
- Atomization or risk pools

# Why people have no insurance - how InsureTech can help

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## ■ Limited purchasing power

- Radical digitization reduces cost
- Peer to peer insurance promises to reduce cost
- Blockchain based smart contracts reduce cost
- Insurance on demand makes premium payment easier
- “concierge” intermediation reduces cost through more transparent competition

## ■ (Poor) people don’t trust insurance

- Peer to peer elements aim to bring trust back into insurance
- Blockchain aims to replace conventional trust with universal auditability
- Insurance on demand makes it easier to try insurance
- “concierge” intermediation centered on clients’ needs and interests
- Radical digitization will increase tangibility through quick turnaround times

## ■ (Poor) people don’t understand insurance

- Insurance on demand makes it easier to try insurance
- Smartphone based distribution (“concierge” intermediation) and interaction (chatbots) lower the cost of communicating with clients
- Peer to peer elements help understand formal insurance in the terms of informal solidarity schemes

# Why people have no insurance - how InsureTech can help

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## ■ No products suitable to the underserved

- Machine learning / AI on big data detects the insurable interests
- Machine learning / AI on big data allows to generate the calculatory bases for product design and pricing in the absence of traditional statistics
- Radical digitization supports the necessary re-engineering of processes

## ■ No business model to sustainably serve low income people

- Insurance on demand teaches insurers high-volume-low-margin model
- Radical digitization makes issuing of even tiny policies profitable
- AI allows to further reduce cost of underwriting and claims management

## ■ No suitable distribution model

- Smartphone based distribution (“concierge” intermediation) helps to reach new markets
- Cloud based radical digitization allows to harness a variety of non-traditional distributors
- Radical de-paperization overcomes geographic exclusions
- Peer to peer bets on word of mouth in social media communities



# Product Proposal – a combination of instruments

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- **Health care expenses come in two flavors**
  - The frequent but not severe (“the constant drip of the tap”)
  - The infrequent but severe
- **They don’t require the same instrument**
- ***Insurance* for the infrequent but severe**
- ***Savings* for the frequent but in severe**
- ***(Loans* when the savings are insufficient)**
- **VAS to reduce the overall cost of being healthy ...**
- **... and to add tangibility**
- **Based on a technological platform that reduces cost, promises scale, and makes the customer experience enjoyable**

# How this can address the usual doubts (1)

Interest to buy (health) microinsurance is low because it is intangible	Insurance will be embedded in a product/service bundle that is very tangible from day 1 and also helps deal with frequent health related worries
Poor people cannot afford health insurance	This product does not initially target the poorest but the considerable “forgotten middle” between (government-supported) bottom of the pyramid and upper middle class. Beyond insurance, This product helps people address their health care expenses with other instruments that are cost-neutral to clients. Furthermore, This product contributes not only to finance but also to reduce the cost of health care
Health microinsurance is pointless if clients have no access to quality care providers	<p>While This product acknowledges the importance of quality care provision, this is not its primary mandate. Instead, This product wants to help people better finance the provision of care that they are accustomed to. Hospital cash insurance for example provides a payment regardless of the choice of hospital the client made, assuming that s/he is best positioned to choose providers based on availability, personal preferences and experience.</p> <p>This product does, however, envision to work with the corresponding parties (including the World Bank) towards the improvement of care provision eventually.</p>



## How this can address the usual doubts (2)

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Health insurance is plagued by adverse selection	This product will not advertise the insurance component primarily
Health insurance is plagued by moral hazard	The health care financing dimension that is most accessible to moral hazard – non-emergency and outpatient – are not addressed by insurance but by savings and loans, motivating the client to be cost-conscious
Voluntary health microinsurance cannot reach the scale necessary to be sustainable	Partnering with institutions that have large outreach – such as MNOs and FIs – to offer a needs-based and demand-tested service aimed to be considerably more attractive than stand-alone insurance
Administrative expenses of health microinsurance threaten sustainability	Harness state of the art technology advances
Enrolling for health microinsurance is a hassle that deters many desirable buyers	Marketing to MNO customers allows to utilize the client data and thus reduce the need for repeated data capture, KYC etc.
Insufficient M&E does not uncover needs for product or process adjustments in time	With all transactions based on a mobile platform, This product allows real-time analytics in considerable detail