There is a shift in the way services are delivered and measured...

Source: Infographic created by Lori Lewis (@LoriLewis) and Chris Chadd (@OfficiallyChadd)
Students are preparing themselves for jobs that don’t exist, using technologies that haven’t been invented in order to solve problems we don’t even know are problems yet.
...and time to reach 50 million users is reducing

Airlines: 68 yrs
Cars: 62 yrs
Telephone: 50 yrs
Electricity: 46 yrs
Credit Card: 28 yrs
TV: 22 yrs
ATM: 18 yrs

PC: 14 yrs
Cell Phone: 12 yrs
Internet: 7 yrs
I-pod: 4 yrs
YouTube: 4 yrs
Facebook: 3 yrs
Twitter: 2 yrs
Pokémon Go: 19 days

Source: Visual Capitalist, Statista, Infographic created by Bill Gross
Sectors are getting disrupted by digital natives and platforms

<table>
<thead>
<tr>
<th>Year</th>
<th>Lending Marketplace</th>
<th>Consumer Lending</th>
<th>SME Lending</th>
<th>P2P Lending</th>
<th>Financial Inclusion</th>
<th>Neo Bank / Accounting</th>
<th>Neo-Entrants</th>
<th>B2C Payments</th>
<th>B2B Payments</th>
<th>Investment &amp; PFM</th>
<th>Insurance</th>
<th>Fintech Enablers</th>
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<tr>
<td>2006 - 10</td>
<td>Deal4loans</td>
<td>paissabazaar</td>
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<td>Capital Float</td>
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<td>Flipkart</td>
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</table>

Source: Fintech India by Digital Fifth
...being unbundled and disrupted by new entrants
...and these new entrants are working across the value chain

Source: medium.com
The disruptors have completely changed the customer experience expectation.
So, what have we been doing at HDFC Life?
In the context of the new world HDFC Life changed its operating model... 

...The operating model moved from product centric to being customer centric
...and created multiple cognitive engines to serve the operating model...

Enablers
- Cloud Computing
- AI / ML
- Data Lake
- Partnering with the Best

Building Blocks
1. Journey Simplification
   - Give me a simple journey from purchase to payout
2. Partner Integration
   - Give me an integrated experience
3. Data Labs
   - Personalize my experiences
4. Service Simplification
   - Give me frictionless service
5. Platforms & Ecosystems
   - Nudge me in my world

Culture
- Fail Early / Fail Fast
- Agile / Sprints
- MVP Approach
- Local Customer / Global Resources

Core Systems | Digital Assets | E-Commerce | Data Labs | Platforms
---|---|---|---|---
Engines powering the new model
...which were used to simplify the customer journey in 5 building blocks

1. JOURNEY SIMPLIFICATION
2. PARTNER INTEGRATION
3. DATA LABS
4. SERVICE SIMPLIFICATION
5. PLATFORMS & ECOSYSTEMS

NETWORKED CUSTOMER
Cognitive engines rapidly developed a suite of products & microservices...
...aligned to solve customer needs

1. JOURNEY SIMPLIFICATION
   - InstaQuote
   - InstaVerify
   - InstaMix
   - InstaFR
   - U/W Engine
   - HDFC Life Mobile App

2. PARTNER INTEGRATION
   - INSTAInsure
   - RECO
   - LifeNext
   - widget
   - nudge engine
   - HelloSelfie

3. DATA LABS
   - Datalake
   - T-learn
   - AgeTymer
   - FaceSense
   - Emolyzer
   - Sentilyzer
   - Bodmeter
   - True Cue
   - PicReader

4. SERVICE SIMPLIFICATION
   - InstaReceipt
   - InstaRevival
   - Chat bot ELLE
   - Whatsapp bot
   - LifeEasy
   - LifeCertificate

5. PLATFORMS & ECOSYSTEMS
   - Email bot SPOK
   - Twitter bot NEO
   - Life99
Our evolution is happening over a period of time...

**Technology enablement**
- Scalability issue
- Longer time to market
- Maintenance concerns
- Scope of automation
- System delay

**Digital & mobility**
- Lack of digital channels
- Empowerment to sales forces
- Manual data entry
- Inefficient platforms

**Re-imagine insurance**
- Threat of disruption
- Limited online exposure
- Personalized products
- Partner integration

---

**Technology capability**
- Infra / server
- Customer Relationship Management (CRM)
- Point of Sale (PoS)
- Online assets and digital tools
- Mobility
- Straight Through Processing (STP)
- Online Policy Sale (OPS)
- Learning Management System
- Data lake
- Customer 360
- Campaign manager
- Recommendation engine
- Nudge repository
- Attribution

**Partner**
- Traditional partners
- Banca
- Feet on street
- Agency
- Website
- Search engine marketing
- Social media marketing
- Online web aggregators
- Ecosystem
- New age partners
...and has helped us reach a few milestones

<table>
<thead>
<tr>
<th>Journey Simplification</th>
<th>Partner Integration</th>
<th>Data Labs</th>
<th>Service Simplification</th>
<th>Platforms &amp; Ecosystems</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;4hr Overall TAT</td>
<td>30,000 Policies issued daily by Airtel</td>
<td>25+ Cloud native tech. products</td>
<td>#1 Spontaneous awareness*</td>
<td>89% Online² business CAGR²</td>
</tr>
<tr>
<td>&lt;3hr Auto-U/W TAT</td>
<td>&lt;1sec Airtel issuance TAT</td>
<td>30% Infra on cloud</td>
<td>90% Renewal³ by electronic mode</td>
<td>&gt;10% EPI contribution through online²</td>
</tr>
<tr>
<td>1.3M Monthly queries on InstA</td>
<td>150+ Bots across 26 functions</td>
<td>1.2days Avg. claim settlement</td>
<td>138M Transactions processed</td>
<td></td>
</tr>
<tr>
<td>1.1M Lives insured through Paytm</td>
<td>30% Infra on cloud</td>
<td>92% Claims settled in a day</td>
<td></td>
<td></td>
</tr>
<tr>
<td>...and has helped us reach a few milestones¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ All metrics / milestones as of current fiscal, unless otherwise specified
² Online includes EDM and HDFC Net Banking
³ Based on NDP
⁴ FY17 - FY19
⁵ Spontaneous awareness among internet users
...and transformed our business

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy issuance TAT</td>
<td>~ 2 days in FY15</td>
<td>&lt; 4 hours in H1FY20</td>
</tr>
<tr>
<td>Auto-underwriting policy issuance TAT</td>
<td>1 – 2 days in FY15</td>
<td>&lt; 3 hours in H1FY20</td>
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<tr>
<td>Time to settle claims</td>
<td>9.3 days in FY17</td>
<td>1.2 days in Oct ’19</td>
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<tr>
<td>Claims settlement ratio (Individual)</td>
<td>90.5% in FY15</td>
<td>99.0% in FY19</td>
</tr>
<tr>
<td>No. of partners</td>
<td>31 in FY15</td>
<td>270+ in H1FY20</td>
</tr>
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</table>
While giving quite a few firsts to the industry...

- HDFC Life Introduces Video Life Certificate – An Industry First – for its Annuity Customers
- HDFC Life launches Atom on Amazon cloud
- HDFC Life partners with IvyCamp to launch Futurance, a programme for startups
- RPA is perfect for eliminating non value adding tasks
- HDFC Life launches InstaInsure; Now get life insurance instantly
- 150 BOTs Fuel Up HDFC Life’s Performance Engines
- With INSTAInsure, HDFC Life Launches Industry First 3-Click Pre-Approved Insurance Offer
- HDFC Life’s Twin Offerings – LifeEasy & WhatsApp Chatbot ‘Etty’ – Spell Greater Convenience for Customers
- HDFC Life talks about how initiatives such as Building Cognitive Enterprises can help organisations to learn from each other and gather insights.
- HDFC Life announces ‘InstA’ an industry first virtual assistant
- HDFC Life is bullish on blockchain, AI and bots
- HDFC Life partners with Google for ML powered marketing automation
- HDFC Life collaborates with Google to maximise campaign results
- Customer focus drives HDFC Life
- HDFC Life launches video life certificate facility for pensioners
...we received industry recognition in the process*

* Non-exhaustive list of awards
Thank You
TechEdge @HDFC Life

December 11, 2019
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The TechEdge @HDFC Life

Technology today is evolving and disrupting businesses at a pace never seen before. Blurring lines of business coupled with increased flow of information has created an ultra-competitive market place where it has become important to continuously innovate, while being agile at the same time. There are numerous examples of sectors being disrupted, e.g., UPI and Google Pay in payments, Uber and Ola in licensed taxicab systems, Coursera re-defining traditional norms of education. And all this at an ever increasing speed, as seen in the image below.

![Fig 1: Time to 50 million customers – reducing at an alarming rate](source: Visual Capitalist, Statista, Infographic created by Bill Gross)

At HDFC Life, we recognised this shift in dynamics and the need to make changes in some fundamental elements of business to survive and thrive...

- Transform business model from being product-centric to being customer-centric.
- Ability to constantly experiment with new and emerging technologies.
- Ability to embrace internal and external changes, uncertainties and adjacencies.

Accordingly, we started by transforming our business model from a product-centric one to a model where we keep the customer at the centre (Fig 2).
This involved a shift from being a traditional ‘distributor and product play’ model to becoming an evolved matrix of platforms, digital channels, ecosystems and traditional avenues fuelled by technology and analytics, with the customer at the core.

In parallel, we invested in multiple change engines that enabled us to stay ahead of the curve. The change engines operate in a collaborative manner with five key customer objectives in mind (Fig 3).
These eventually translate to the five building blocks as follows (Fig 4):

1. Journey Simplification
2. Partner Integration
3. Data Labs
4. Service Simplification
5. Platforms & Ecosystems

*Fig 4: Simplifying the customer journey in 5 building blocks*
We view the customer on-boarding process as a key element of our success. It is important to showcase ease of transaction and enable a simple and frictionless experience. To this end, we have developed a suite of mobile applications “Insta suite” comprising various sub modules that facilitate front line sales teams to onboard customers efficiently and effortlessly. Some of the key Insta apps are as follows:

- **InstaMix**: Used to create combo solutions covering multiple products to enable easy and insightful presentations for prospective customers.
- **InstaGo**: Geo-tagging enabled partner and lead management tool, which can help front line sales to track visits to their partners and customers.
- **Mobile Sales Diary (mSD)**: Sales enablement solution that helps the field sales force through the core sales processes of illustration creation, quote generation, form filling, document upload and premium collection.
- **InstaVerify**: Tool for pre-conversion verification used at the point of sale; the tool enabled reduction in the dependency on call centres for call-based verification. Apart from English and Hindi, the app is available in 5 common vernacular languages. >3 mn customers verified through InstaVerify since launch.
- **InstaHuddle**: Enables sales team managers to connect with their teams to provide insights on key business topics and enhance their learning and knowledge.
- **instA**: Virtual assistant that leverages AI, ML and NLP technologies to answer product and process related questions of our sales and operations teams, enabling them to better serve our customers. It currently handles over 13 lakh queries per month across about 960 query types, with an accuracy of around 99%.
In addition, we are also present on third-party platforms, including online web-aggregators, such as PolicyBazaar, Coverfox and Easy Policy among others. We offer bespoke as well as plug and play technology integration solutions based on the digital maturity of the partner. We integrate our products and processes with partners who (a) build their own end-to-end platforms (where the journey happens on the partner’s platform), as well as, (b) are on redirection mode where one part of the journey (typically quote & payment) happens on the partner’s platform and the rest on our platform. This enables superior customer experience & ensures that our best practices as well as product updates & features are seamlessly integrated with our partners’ systems.

In addition to the on-boarding process, we have also taken various initiatives to provide a simple and fast journey across the value chain, leveraging our capabilities in cloud computing, artificial intelligence, and robotics amongst others. Some of the key highlights of journey simplification include:

- Turnaround time (TAT) for policy conversion has reduced from 2 days in FY15 to <4 hours in H1 FY20.
- Online channel has grown at a CAGR of 89% between FY17 and FY19.
- HDFC Life ranks #1 in spontaneous awareness amongst internet users (Private life Insurers).

2. Partner Integration

![HDFC Bank, Paytm, Airtel](fig6.png)

*Fig 6: Success at HDFC Bank, Paytm and Airtel*
We currently have over 270 distribution partners, of which more than 40 are new-age ecosystem partners. To manage this distributor base, highly efficient platforms powered by advanced analytics, automation and artificial intelligence are needed. These platforms, which can be integrated with partners’ applications through open APIs, enable us in striking a balance between costs, revenue, risk, and business quality. Open API-based integration also enables us to customise as per business needs of the respective partners.

Key examples of partner integration include:

- **HDFC Bank**: Approximately 82% cases are issued via ‘straight through processing’. System integration has helped customers fill an application form within 10 minutes.

- **Simplified journeys on Paytm and Airtel**: We have successfully partnered with Paytm offering instant pre-approved insurance with a 3-click journey, and have insured 1.1 million lives since launch of the partnership in May 2019. With Airtel, we have bundled a life insurance cover of Rs. 4 lakh with a prepaid recharge of Rs. 249 and are on-boarding around 30,000 customers per day, with a Certificate of Insurance (COI) issuance TAT of less than a second.

- **Credit Protect partners**: Our LifeNext platform, designed specifically for partners who offer consumer loans, provides instant services across the value chain including, partner hierarchy mapping, payment modules, Insurance Certificate issuance, lead transfers and end-to-end workflows.

- **InstaInsure**: We offer pre-approved sum assured insurance solutions for pre-defined customer segments through InstaInsure. Using underwriting algorithms and deep integration with partner systems, these offers need minimal underwriting and documents.

- **Sales Enablers**: We have a suite of tech offerings, which enable frictionless customer journeys such as Hello Selfie, Credit Mart & other widgets. Personalisation through recommendation and nudge engines is helping us cross sell to our existing customers as well.

3. **Data Labs**
In 2012, the World Economic Forum stated that personal data is becoming a new economic ‘asset class’. We have harnessed our customer data by enhancing our computing power and analytics abilities. To this end, we are working on 3 broad areas:

- **Cloud Storage / Computing**: Cloud computing is helping us reduce opex costs, increase scalability, eliminate version upgrade hassles and enable customisation as per changing business needs. We currently have over 25 cloud native products with 30% of the traditional infrastructure runs on cloud platform.
Big Data: We use Big Data and analytics models across several business areas with the objective of accurately predicting customer behaviour, thereby providing a customised experience.

Artificial Intelligence (AI): We believe that AI is the future of technology, and will facilitate businesses to identify, assess, and underwrite emerging risks and identify new revenue sources. Our current AI capabilities have helped us in the areas of risk mitigation at payouts, sentiment analysis at service touch points and hyper-personalisation of sales incentives, among others.

Some of the capabilities built by us in this context include:

- **Text AI**: Our Twitter bot Neo and Email bot SPOK are used to handle common queries and queue management. The Sentilyzer tool, with an accuracy of 95%, helps us understand customer sentiments from email / text messages, helping us improve our service quality.

- **Vision AI**: Our AgeTymer tool provides an emotional trigger at quote stage, while FaceSense solution, which has an accuracy of 92%, is used for customer verification at the stage of Payouts. Yet another solution, Bodmeter, helps in determining customer BMI from a selfie.

- **Speech AI**: We have created an industry-first voice bot sVar, which has helped improve the efficiency of the revival process. Our voice authentication solution TrueCue has an accuracy of more than 98%.

- **Machine Learning (ML)**: Our ML models and algorithms are used across functions including new business (e.g., prediction of customers with high purchase power), on-boarding (e.g., predicting possible fraud or early claims), customer retention (e.g., predicting customers who may renew proactively) and employee management (e.g., identifying employees with high attrition risk). Our propensity models have helped increase appointment rates with customers by ~42%. Within the on-boarding process, our Risk+ model has helped convert additional premiums at lower risk and avoid potential payouts of about Rs. 210 Crore through effective screening of high risk cases.

- **Cognitive bots**: We use such bots for automating manual processes across different functions to improve operational excellence. We have over 150 bots across 26 functions.

4. Service Simplification

Given our emphasis on customer-centricity in the new model, service simplification emerged as a key building block of our strategy. Using our solutions and capabilities listed above, we now offer simplified service to our customers, centred around:
- **Instant experience:** Today, a personalized customer experience is not just expected, but is demanded. Keeping this in mind, we have created a suite of mobile applications – mobile app for customers that enables policy servicing at their fingertips; InstaServ, used by branch operations team for customer transactions at our branches, that helps faster and accurate resolution of customer queries; Insta Receipt, that enables instant issuance of renewal premium payment receipts; Insta Revival, that enables the processing of lapsed cases to make them ‘in-force’ thereby improving our persistency.

- **24x7 experience:** To provide 24x7 service experiences, we have deployed customer service bots – chat bot Elle, Twitter bot Neo, email bot SPOK, and WhatsApp bot Etty – across all digital touch points, including our portal and social media avenues.

- **Process automation:** We have deployed over 150 cognitive bots – 41% of them automating complex business processes. These bots impact 26 different functions, and have completed over 138 million transactions in FY19 to bring in greater scale, efficiency, and 24X7 service delivery, resulting in significant improvement in turnaround times as well as elimination of non-value added activities. Key manual tasks, including rule-based transactions viz. case allocation and de-dupe etc., have been taken over by these cognitive bots reducing specific process TATs.

- **Frictionless experience:** As an organization focused on the customer journey, we have identified various customer pain points and have introduced key initiatives such as – Life Easy, an analytics-driven investigation process, which has enabled us to settle 92% of claims (non-investigated cases) within 1 day of intimation; Customer 360, a real-time customer interaction aggregator to understand customer needs holistically and offer better service; Life Certificate, a tool that enables senior citizens to provide their survival status remotely through a video, thereby resulting in faster processing of annuity payouts; Quick Register, a tool that allows 3-click auto debit registration supported by multiple banks and card networks.

5. Platforms and Ecosystems
We believe that ecosystems offer us a way to tap the captive customer base of our partners, providing us an opportunity to generate new profit pools in non traditional ways.

- We have tied up with several non-traditional ecosystem partners like Airtel, Paytm and Uber, among others, to tap into this opportunity.
- In addition, we have also taken the lead in orchestrating platforms and ecosystems in areas where we believe we are the natural owner. Our retiral platform 'Life 99' launched earlier this year (under our pension subsidiary) is a one-stop shop for retirement planning, which has consolidated data, account views and associated services for all
retirement needs of its users. More than 35 corporate partners and 10,000 users have registered on the platform within 6 months of launch.

**Fig 7: Our partner ecosystem (partners mentioned are for the purpose of illustration only)**

**Futurance:** We have also partnered with IvyCamp this year to launch ‘Futurance’, a program that helps us identify and work with start-ups possessing cutting edge technologies relevant to our business. This we believe will further open up new opportunities and form an additional element of our platform and ecosystem strategy.

**In conclusion**

Our journey has evolved significantly over past few years – from using technology just as an enabler, to now using it to re-imagine insurance (Fig 8).

**Fig 8: Our technology journey till now**
While we have invested significant management bandwidth and resources so far, we are acutely aware of the need to continue investing and treading this path of constant evolution, with technology as a key differentiator. And our future plans aim to do just that – from launch of products and solutions to further simplify and enhance customer experience, to bringing in more transparency to the life insurance sector by de-jargonizing complex products, we have a range of new initiatives in the pipeline.