Big Bang Disruption in the Postal & Parcel Industry

Brody Buhler, Accenture Global Managing Director – Postal & Parcel

High performance. Delivered.

Strategy | Consulting | Digital | Technology | Operations
Big Bang Disruption

BIG-BANG MARKET SEGMENTS

Innovators (2.5%)
Early Adopters (13.5%)
Early Majority (34%)
Late Majority (34%)
Laggards (16%)
Competitive Strategies

Strategy gurus would say you must pick one.
Big Bang Applied

Google navigation took only one year to disrupt the GPS industry.

NB: Garmin and TomTom data from available 10k filings and annual reports. Garmin’s year 0 = 1998 (StreetPilot debut); TomTom’s year 0 = 2002 (Navigator debut). Both Garmin and TomTom unit sales are inclusive of all GPS products. Google data from publicly available news sources; year 0 = 2007 (debut of Maps for Mobile 2.0)

* TomTom stops reporting unit sales per year after 2009
The Singularity

Until the right combination occurs it is a series of failed experiments.
Driven By Moore’s Law

- Unconstrained Growth
- Undisciplined Strategy
- Unencumbered Development

BIG BANG DISRUPTION
TRADITIONAL TECHNOLOGY ADOPTION CURVE

Market Penetration vs. Time
Twice as good as the flip phone was easy…
Twice As Good

... the next iPhone is much harder.
Big Bang Disruptors Are Everywhere

<table>
<thead>
<tr>
<th>Industry</th>
<th>Big Bang Disruptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maps &amp; dedicated GPS devices</td>
<td><img src="image" alt="waze" /></td>
</tr>
<tr>
<td>Taxi services</td>
<td><img src="image" alt="UBER" /> <img src="image" alt="lyft" /> <img src="image" alt="Side·car" /></td>
</tr>
<tr>
<td>Hospitality – Hotels</td>
<td><img src="image" alt="airbnb" /></td>
</tr>
<tr>
<td>PCs and Laptops</td>
<td><img src="image" alt="iPad" /></td>
</tr>
<tr>
<td>Financial Services – Payments</td>
<td><img src="image" alt="PayPal" /> <img src="image" alt="Google wallet" /> <img src="image" alt="ISIS" /></td>
</tr>
<tr>
<td>Retail</td>
<td><img src="image" alt="amazon.com" /></td>
</tr>
<tr>
<td>Education</td>
<td><img src="image" alt="coursera" /> <img src="image" alt="EDx" /></td>
</tr>
<tr>
<td>Travel agencies</td>
<td><img src="image" alt="travelocity" /> <img src="image" alt="Expedia" /> <img src="image" alt="priceline" /></td>
</tr>
<tr>
<td>Yellow pages</td>
<td><img src="image" alt="yelp" /></td>
</tr>
<tr>
<td>Film rentals</td>
<td><img src="image" alt="Netflix" /> <img src="image" alt="amazon" /> <img src="image" alt="insta" /></td>
</tr>
<tr>
<td>Low-end digital cameras</td>
<td><img src="image" alt="iPhone" /></td>
</tr>
</tbody>
</table>
Moore’s Law Applied

Three technologies have come together to forever, radically change the consumer landscape.
We’ve Already Seen It

Source: Global approximation based on data from USPS, “Email Volume Estimates from 1978 to 2011,” International Center for Integrative Systems

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Potential Big Bang Disruptors

New Delivery Models

Analytics Driven Network Brokers

Drone Delivery
New Models Now Possible

New entrants have an entirely different cost structure. It is no longer about density.

- Sourcing Spare Capacity
- Rapid Scale (Up and Down)
- Technology Enabled
- Focused On Last Mile (For Now)
### Significant Last Mile Investment

#### Total Funding in Sharing Economy Start-ups by Year ($M)

<table>
<thead>
<tr>
<th>Year</th>
<th>Funding ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>60</td>
</tr>
<tr>
<td>2010</td>
<td>96</td>
</tr>
<tr>
<td>2011</td>
<td>283</td>
</tr>
<tr>
<td>2012</td>
<td>357</td>
</tr>
<tr>
<td>2013</td>
<td>116</td>
</tr>
<tr>
<td>2014</td>
<td>958</td>
</tr>
</tbody>
</table>

#### Total Sector Funding ($M)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Funding ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stay</td>
<td>800</td>
</tr>
<tr>
<td>Transport</td>
<td>645</td>
</tr>
<tr>
<td>Personal Goods</td>
<td>273</td>
</tr>
<tr>
<td>Private Spaces</td>
<td>51</td>
</tr>
<tr>
<td>Business Equipment</td>
<td>16</td>
</tr>
<tr>
<td>Food</td>
<td>11</td>
</tr>
<tr>
<td>Logistics</td>
<td>4</td>
</tr>
<tr>
<td>Storage</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Top Funded Companies

- **Airbnb** ($776.4M)
- **Wimdu** ($90.0M)
- **Lyft** ($333M)
- **RelayRides** ($53.2M)
- **Boatbound** ($5.3M)
- **Chegg** ($252M)
- **Bag Borrow or Steal** ($20.0M)
- **LiquidSpace** ($26.2M)
- **PivotDesk** ($6.7M)
- **Storefront** ($8.9M)
- **Getable** ($3.2M)
- **Yard Club** ($1.6M)
- **EatWith** ($9.2M)
- **Suppershare**
- **Friendshippr** ($1.2M)
- **WeDeliver** ($0.8M)
- **Roost** ($160k)
- **StowThat** ($50k)

#### Top Investors

- **Sequoia, TPG Growth**
- **Trinity Ventures, Shasta Ventures, Google Ventures, August Capital**
- **Shasta Ventures, Roth Capital Partners, Lucas venture Group, Spark Capital**
- **N/A**
- **N/A**
- **N/A**
- **GreyLock**
- **N/A**

Source: Sharing Economy Landscape, 2015, Tracxn, Accenture Analysis

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**Variable Cost Networks Change The Game**

**Variable Cost Levels – Margin Impact**

<table>
<thead>
<tr>
<th>Variable Cost Ratio</th>
<th>Operating Margin Loss Sensitivity</th>
<th>1%</th>
<th>3%</th>
<th>5%</th>
<th>7%</th>
<th>10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td></td>
<td>9%</td>
<td>27%</td>
<td>45%</td>
<td>63%</td>
<td>90%</td>
</tr>
<tr>
<td>20%</td>
<td></td>
<td>8%</td>
<td>24%</td>
<td>40%</td>
<td>56%</td>
<td>80%</td>
</tr>
<tr>
<td>30%</td>
<td></td>
<td>7%</td>
<td>21%</td>
<td>35%</td>
<td>49%</td>
<td>70%</td>
</tr>
<tr>
<td>40%</td>
<td></td>
<td>6%</td>
<td>18%</td>
<td>30%</td>
<td>42%</td>
<td>60%</td>
</tr>
<tr>
<td>50%</td>
<td></td>
<td>5%</td>
<td>15%</td>
<td>25%</td>
<td>35%</td>
<td>50%</td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td>4%</td>
<td>12%</td>
<td>20%</td>
<td>28%</td>
<td>40%</td>
</tr>
<tr>
<td>70%</td>
<td></td>
<td>3%</td>
<td>9%</td>
<td>15%</td>
<td>21%</td>
<td>30%</td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td>2%</td>
<td>6%</td>
<td>10%</td>
<td>14%</td>
<td>20%</td>
</tr>
<tr>
<td>90%</td>
<td></td>
<td>1%</td>
<td>3%</td>
<td>5%</td>
<td>7%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Variablizing costs or being more captive in sustainable revenue streams would be important.

Notes: Illustrative of a firm with a 10% operating margin in the original scenario. Source: Accenture Analysis.
Better?

- Faster Delivery
- New Value Added Services
- Convenience Is King
Cheaper?

Estimated last mile delivery costs.

- Royal Mail
- Deutsche Post
- United States Postal Service
- UPS
- Uber
- LaserShip

- $5.00+
- $2.00
- $1.50
More Personal?

- When I Want It
- Where I Want It
- Completely Transparent
- Fully Within Consumer Control
Potential Big Bang Disruptors

New Delivery Models

Analytics Driven Network Brokers

Drone Delivery
Analytics Driven Network Brokers

The emergence of multi-carrier domestic fulfillment solutions is following the models developed for cross-border solutions.

<table>
<thead>
<tr>
<th>Building Blocks</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant Scale</td>
<td>• Large contracts directly with retailer/retailer</td>
</tr>
<tr>
<td></td>
<td>• Founded on price negotiation power</td>
</tr>
<tr>
<td>Analytics driven</td>
<td>• Detailed data on price and performance</td>
</tr>
<tr>
<td></td>
<td>• Becoming predictive</td>
</tr>
<tr>
<td>Multi-carrier first/last mile</td>
<td>• Negotiated lanes connecting hubs</td>
</tr>
<tr>
<td></td>
<td>• Multi-carrier last mile strategies</td>
</tr>
<tr>
<td>End-to-End Visibility</td>
<td>• Proprietary tracking systems knit networks</td>
</tr>
<tr>
<td></td>
<td>• Customers see single network</td>
</tr>
</tbody>
</table>
Cainiao

The most advanced and aggressive of these networks is an emerging player in China called Cainiao.

<table>
<thead>
<tr>
<th>Company Details</th>
<th>One China Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Founded</td>
<td>2013</td>
</tr>
<tr>
<td>CEO</td>
<td>Jack Ma (founder Alibaba)</td>
</tr>
</tbody>
</table>
| Ownership       | • 40% Alibaba  
|                 | • 30% Real Estate Dev  
|                 | • 1% each – SF Express, ZTO, Shentong Express, YTO, Yundan Express |
| Coverage        | 2,000 of largest cities in China |
| Network         | 9 processing centers across China |
Cainiao

This new model may become the default shipping option for most content moving through China’s domestic networks.

### Building Blocks

<table>
<thead>
<tr>
<th>Significant Scale</th>
<th>Analytics driven</th>
<th>Multi-carrier first/last mile</th>
<th>End-to-End Visibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Cart" /></td>
<td><img src="image" alt="Magnifying Glass" /></td>
</tr>
</tbody>
</table>
| • All Alibaba content  
  • 96% of C2C  
  • 45% B2B  
  • 50% B2C  
  • Expanding to include other etailer/retailers | • Selecting on price and service responsiveness  
  • Detailed pricing by lane  
  • Objective is D+1 across China | • Sourcing network from 5 largest CEP companies in China  
  • China Post for USO and warehousing  
  • Large stake in KXTX logistics platform (ground transport) | • Tracking system called Logistics Pal  
  • Captures tracking events across networks for every delivery |
Better?

- Improved Service Reliability
- Focused on Speed (next day everywhere)
- Remote Locations
Cheaper?

Currently focused on speed and reliability but price is next.

Analytics driven pricing data

Leveraging spare capacity

Minimal network investment required
Drone Delivery

One of a few truly transformative technologies, drones will soon become part of the consumer landscape.

• Flight controllers have dropped 100x in last 8 years
  • Fully autonomous for $150
  • Mission control: laptop, tablet or smartphone

• Sensor costs dropping rapidly driven by smartphone investment
  • Cheaper, smaller and more environment aware
  • Processing capacity and speed exponential

• Hobby/consumer use becoming prevalent, cheap and easy
  • Even hobby models have multiple onboard radios
  • Taking selfies to a new level

Accelerometers
Barometers
Gyroscopes
Digital Compasses
Microprocessors
WiFi Radio
Bluetooth Radio
Cellular Radio
Near Field Comms
Batteries
Displays

Cheaper.
Faster.
Smaller.
Drone Delivery

Experiments are just getting started.
But We’re Not There Yet…

Additional technology and regulatory advancement required before delivery will be a reality.

<table>
<thead>
<tr>
<th>Country</th>
<th>Status</th>
<th>Delivery Suitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>Clear regulations and certification</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>Germany</td>
<td>Clear regulation and certification</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>US</td>
<td>Draft regulations until 2016</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>Australia</td>
<td>Clear regulations and certification</td>
<td>☐ ☐</td>
</tr>
<tr>
<td>India</td>
<td>No regulation – local discretion</td>
<td>☐ ☐ ☐</td>
</tr>
<tr>
<td>China</td>
<td>No regulation – local discretion</td>
<td>☐ ☐ ☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collision avoidance</td>
</tr>
<tr>
<td>Battery – the universal limiter</td>
</tr>
<tr>
<td>Longer life</td>
</tr>
<tr>
<td>Autonomous swap</td>
</tr>
<tr>
<td>Autonomous package delivery/retrieval</td>
</tr>
<tr>
<td>Delivery base systems</td>
</tr>
<tr>
<td>App store model</td>
</tr>
</tbody>
</table>
Better?

Faster Delivery (less than hour)

All Hours

Remote Locations
Cheaper?

Current experiments are too costly but models estimate delivery could be very cheap.

- **25 kilometers**
- **2 kilograms**
- **.24$**
More Personal?

- When I Want It
- Deliver To My Location
- Smartphone Controlled
What Should Companies Do About It

The Singularity
The Big Bang
The Big Crunch
Entropy
Foresight
Scaling Management
Asset Freedom
End Game Mastery
Thanks

Brody Buhler
robert.b.buhler@accenture.com

High performance. Delivered.