

# Singularity 2024

## Exponential Data

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**INEVITABLE FUTURES**  
**BASE CAMP STRATEGY**  
**DIGITAL BASE LAYERS**  
**VIRTUOUS CYCLES**  
**ECONOMIC INEVITABILITY**  
**METADATA+**  
**INTERNET OF MINDS**

## Questions for Every Company to Answer in the Data Age

### 1. Inevitable Futures

What are the inevitable futures from which we are backcasting?

What “stepping stones” are we trying to reach to be part of that inevitable future?

### 2. Basecamp Strategy:

What roadmaps can we replace with a basecamp strategy?

### 3. **Digital Layers**

What are the base layers we could enrich to reach those “stepping stones”?

### 4. **Virtuous Cycles:**

What virtuous cycles can we build into our data lifecycles through our business?

### 5. **Economic Inevitability**

Where can digitized trust or newly emerging classes of data unlock untapped economic waste?

### 6. **MetaData+**

Where can the Internet of Minds unlock new opportunities for creating metadata?

### 7. **Internet of Minds**

## **Enrich Your Base Layers:**

- **“What Base Layers could we enrich?”:** According to Tim O’Reilly, he sees the most successful companies today building new digital base layers to open new adjacent possibilities. Examples include Google’s use of street view to enhance their self-driving cars, the creation of Gmail to capture text data for analysis, the acquisition of Waze to crowdsource up-to-date street information, Google Sketch to get 3D building information, and Google voice to get audio files.

## **BackCasting & Inevitable Futures:** “What are the inevitable futures of which your company is aiming to be a part?”

Eric Horvitz, senior research director at Microsoft, favorite technique for brainstorming is **BackCasting**. He imagines inevitable futures and the futures at each stage before that until he sees a point he believes he can reach. When Google decided to enter driverless cars, it began when Astro Teller said, “is there any future of which driverless cars is not a part?”

## **Inventory your Dark Data. Capture Your Data Exhaust:**

- **“How do we leverage Data Exhaust to build base layers? Where and what is our Dark Data?”** 63% of the data in companies is unanalyzed “dark data.” Data created in the natural process of work is a viable and often valuable source of new business opportunities. The app *Moves*, acquired by Facebook, leveraged the data exhaust from in smart phones to duplicate the data from pedometers. iRobot is selling their room

mapping data collected from their home cleaning robots to Google. Qualcomm's new 3D cameras will create new streaming sources of 3D data from cameras, drones, and robots. GlobaFishingWatch.org leverages the data exhaust from the AIS signal on boats to identify illegal fishing.

□ **“What is our company from a data centric view? Are we leveraging the long tails of data value?”** Amazon grew their business 30-40% by targeting the long tail. Long tails exist in data as well. LinkedIn is a social graph that, today, when asking users to “only invite and connect to people they know well” forces its users to chop the long tail from their social graph leaving data value on the table.

□ **“What pixels from space can be used to create new value?”**

**Satellites:** Geoanalytic companies like Orbital Insights and SpaceKnow are transforming satellite pixels into new base layers including tracking retail parking lot traffic, oil storage, building project progress, illegal activities, humanitarian crises, economic indexes and even GDP projections. Companies like [planet.com](http://planet.com) offer 72cm resolution from a collection of 13 satellites, anywhere on the planet within 12 hours with updates twice a day. Future satellite resolution for NGOs should approach 6-10cm similar to spy satellites today - with frequency updates more than twice a day. Prices per pixel are dropping exponentially.

**Drones:** 1 million drones are registered in the U.S. alone. Companies like Zipline are planning almost 2,000 drone deliveries per day creating a new platform for continuous image capture.

□ **“What data from 3D point clouds can create new value?”**

**Autonomous Cars:** A single self driving car from Waymo captures almost 4TB of data per day. With multiple lidar, radar and images embedded in self-driving cars, realtime 3D point cloud data will be increasingly available and exponentially lower cost.

**Augmented Reality:** The emergence of AR glasses creates new opportunities for continuous image and audio data both indoors and outdoors from the ground.

**MetaData:** “What emerging metadata can be leveraged to create new value?”

**Internet of People:** New machine intelligence technology is increasingly able to identify behaviors from image and video data. London has over 400K CCTVs. Whereas self-driving cars might decrease government revenues from speeding tickets, the rise of the ability to track people's behavior, emotions, and locations indicates a new wave of automated ticketing and surveillance systems to replace them such as China's automated jaywalking SMS ticket proposal.