## Imagining the innovation symphony.

Where are those "flying cars" we were promised? One answer might be: in your pocket. Today's mobile phone can instantly transport you anywhere in the world, anytime, with real time face-to-face video.

We take these phones, our "digital flying cars," for granted. We underestimate the complex symphony of technology that makes them possible – enormous computing power, sophisticated screen engineering, advanced satellite communications networks, the Internet, decades of transistor evolution, and more.

We underestimate interrelationships all the time. Whether we're thinking about a new device, an online platform or even an innovative service like Uber, we frequently mistake one "instrument" for the entire orchestra. The reality is that today's most valuable businesses are all about the ensemble, not the soloist. And those flying cars? When they actually do arrive, they will represent a harmony of hundreds, even thousands, of technologies and systems.

### Game-changing innovation has always been a symphony of multiple technologies.

I am a passionate student of the role of technology in innovative business design. As a serial entrepreneur and lifelong inventor with 650 issued patents, I have launched three companies, including Priceline, that grew from zero to 50+ million customers.

Each of my successes had one thing in common: a "star soloist" (a dominant, up-front technology or concept), supported by a less-visible, but vitally important "orchestra" of supporting technologies.

For example, Priceline's soloist was a new kind of travel buying idea ("name your own price"). The supporting orchestra included travel industry databases, revenue management systems, credit card payment networks and the humble telephone network, to name a few.

# Today's technology symphony is now more powerful than ever. And, yes, it's about to grow 100-fold.

Digital technologies have transformed the economics of doing business — especially when scaling to millions of customers. Digital media is now radically scalable at a cost somewhere between dirt cheap and free.

For example, companies pay little or nothing to distribute a free app, launch a viral video on YouTube or Facebook, blast out 50 million targeted emails, or engage social media (if you can get people talking about your product). There's no need to build your own computer centers, proprietary distribution nodes or most software. You can use Big Data, handheld smart devices, the Cloud, and powerful off-the-shelf programs for nearly everything.

When tomorrow's new instruments – such as machine learning and synthetic biology – join this orchestra, the ensemble will be able to play music that no one has heard before.

No matter how powerful new technology becomes, a startup's most valuable asset will always be its "score" for a great business or a great service. Real value comes from the imaginative way a business uses any of a dozen or more off-the-shelf digital technologies to "arrange" that melody. Successfully composed, the result is global reach, achieved for near-zero variable cost. Game on, flying cars.

#### The "digital technology orchestra" can solve problems that were previously unsolvable.

Technology is just the means, not the end. Business innovators compose these technology symphonies for just one reason: to solve commercial problems, for a return above their risk-adjusted cost of capital. The geniuses among them will solve problems that previously could not be solved affordably, if at all.

That's how a small orchestra of just 22 people could launch WhatsApp, attract hundreds of millions of users, and then sell it to Facebook for \$19 billion. WhatsApp and other big successes focus on meeting customers' needs, not just some new technology.

#### Integrating new technologies to solve largescale, previously unsolvable problems is also the mission of my new company, Upside.

Upside's "technology symphony" enables small business travelers to use personal flexibility to get big-company travel discounts, in ways not possible just three years ago. How? Our Big Data-driven, Cloud-based "innovation orchestra" instantly analyzes 10,000+ possible itineraries with tens of millions of combinations to create the lowest-cost "package deal" for each unique business trip.

Travelers choose the business-quality flights and hotels they want for their package and get a free gift card worth \$100 to \$500 on Amazon, or their choice of 50 other top retailers. And, as an incentive to save their company money, when they choose lower-priced options they get a bigger gift card. Spend less. Get more. That's music to some ears.

#### The innovation orchestra will revolutionize existing industries, and launch new ones.

Upside is leading the transformation of the \$200 billion U.S. market for small business travel, and it's just our first overture in a coming group of economic symphonies. Several trillion-dollar sectors, including healthcare and insurance, will be transformed by innovations using digital tools in new combinations.

Expect big changes soon. The 21<sup>st</sup> century digital innovation orchestras are tuning around the world. Hear the music?

Jay Walker
Chairman and CEO
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It's all about the upside.