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A Way Out

An Expandiverse Novel by Dan Abelow

About the Author / Inventor

DAN ABELOW is an American author, inventor, speaker and consultant who has degrees from Harvard and the Wharton School.

As an author, Dan has ghostwritten or written five published books, two of which have been million-copy bestsellers. He is currently writing two novels set in the *Expandiverse*, the first patent pending digital reality / digital world.

As an inventor Dan Abelow's previous patents are licensed by over 500 corporations including Apple, Samsung Electronics, Google and Microsoft. His new patent pending invention, the *Expandiverse*, is the first fully realized digital world that can stand next to our physical world.

As a technology consultant Dan is an expert who has helped leading worldwide corporations create and deliver large advances in websites, products, services and enterprise systems.



Photo by Joseph Cristina

Save the Future!

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A new age is arriving. Digital realities are dawning with numerous ways for each of us to evolve, enjoy freedom, create happiness, and prosper. We will no longer be just one world, just one physical reality.

A new creation, the Expandiverse, offers as many shared planetary life spaces as each person wants, all together at the same time, on this one planet.

"The world" will never be the same again.



Black Swan

Chapter 1

This decade, in Silicon Valley.

LIKE THE BILLIONAIRES it had helped create, the venture capital firm Mallory, Robbins and Callaway was outrageously successful. More wealth had been created in a shorter time in Silicon Valley than any other place and time in history, and this firm had produced more new wealth than anyone else in the Valley. But deep within one of its founder's ambitions was an even bigger dream. Scott Mallory would turn Silicon Valley into the first rung on the world's highest ladder.

The billionaires and millionaires checking in, elbow-toelbow at the firm's reception desk just before 10 AM that Tuesday, recognized each other immediately and took time to greet each other. Mostly male, they were the founders, owners and former owners of the Valley's most successful high-tech startups during the past two decades. They wore the Valley's eclectic culture comfortably, a few in impeccable suits while most sported sneakers or sandals. Despite their individual styles, they uniformly projected attitude as deep as their pockets.

The large, secret meeting had been surprisingly easy for Scott Mallory to pull off. "You need to prepare for a black swan," his invitation read. "A unique digital advance could change everything, and you need a confidential (secret) briefing." A short Non-Disclosure Agreement was attached that required total secrecy, as if this meeting never took place. This cover story was an old one. Having a private briefing on the next new 'big thing' was a valid reason for any of them to be there.

As they arrived they were guided into an oversize conference room filled with Eames and Aeron chairs along its walls as well as packed around its long table. As they saw who else was attending the surprise on their faces grew, and as more arrived the room's energy swelled noticeably. It was unprecedented for this group to meet secretly. But then so was a digital black swan, an unpredictable technology that couldn't be foreseen but would seem inevitable when looking back.

Scott Mallory looked around the packed room and smiled at the feral alertness of those attending, as if an invisible bond fused their raw energy into one force, transforming them into a predatory swarm.

Somehow Mallory had always known a digital tsunami would arrive, a technology that would turn previous digital revolutions into mere waves on a beach: transistors, computers, PC's, the Internet, smart phones, new media, social networking, cloud services... the blizzard of advances were all just waves, signals that a tsunami was building over the horizon where it was unseen, unknowable.

Now it was sweeping toward this moment, toward them.

It was the future everyone everywhere would want, the historic inflection that might deliver the dreams of wealth and freedom that individuals, societies and humanity had always needed, always imagined.

Today these leaders would each be given the chance to own their piece of it, to have their say in it, to turn it loose on the world.

This group could take life and prosperity to a higher level than it's ever been, Mallory thought. An Expandiverse, a new kind of digital reality, would be born and stand next to physical reality – containing multiple digital worlds they'll design to reach amazing goals.

Was this the first of their secret meetings or maybe their only one, he wondered. Most likely they would use this technology's new way to meet digitally and unobservably, to work together in a dematerialized space that could not be seen or touched, the first of the invisible and undetectable groups who would own and run this future.

Its first step was here. It was time for the black swan to arrive.

* * *

As Mallory opened the meeting he walked the long way around the conference table, first heading around the back, saying hello by name.

"It's very rare for this group to get together, especially at a secret meeting," he said as he reached the head of the table. "Let's get to why you're here. First up is Katherine Schofield-Thompson, a Stanford historian who will give you the first reason that you will never forget this meeting."

"Let's get perspective on who you are and why you're here today," Schofield-Thompson began, as a map of Europe was projected on the conference room's large screen. The map zoomed in on Germany and then Strasbourg. "We'll start where the biggest intellectual revolution in history began.



"About 560 years ago in Strasbourg, Germany, Johannes Gutenberg invented modern printing. What you might not know is that Gutenberg had very little to do with inventing what we call the book."

Schofield-Thompson motioned to an assistant who took the cloth cover off of a rolling cart that had an overside book on it, already opened to its first page.

"One of the first books ever printed is the Mainz Psalter, in 1459 (1). You have the special honor of having it rolled in front of you... but don't touch it or the other two books you're about to see up close," Schofield-Thompson said as the assistant started rolling it past one person at a time, around the conference room. Each person turned to it as if it were a source of raw energy.



(1) Mainz Psalter (1459). <u>http://www.historyofinformation.com/index.php?id=2967</u> Used with permission.

"What's the most obvious and important part of this book?," Schofield-Thompson asked. "It doesn't look like what we call a book. It looks more like the handwritten books that were copied by hand, one by one, before the printing press was invented. In fact, the printer of the Mainz Psalter was careful to copy the handwriting mannerisms that were expected by readers in that generation.

"The next example is projected overhead on the screen and it's from 1467. It's the De Sermonum Proprietate, Seu de Universo (2)," she said pointing at the image on the screen. "This is the first printed encyclopedia and it has a two column layout printed in a regular, standardized font – but the design of its letters and the lack of paragraphs still resembles handwritten books."



(2) De Sermonum Proprietate, Seu de Universo (1467, the first printed encyclopedia). <u>http://www.historyofinformation.com/index.php?id=361</u> Used with permission.

Schofield-Thompson motioned to a second assistant who took the cloth cover off of a second rolling cart. This also had an overside book on it, already opened.

"You're now going to have a second book rolled in front of you. This is the first illustrated travel book ever printed and its quite famous, the Peregrinatio in Terram Sanctam, printed in 1490 (3).

"1490 is an entire generation later, and by now books have special purposes – like this illustrated travel book – and each book serves a different audience. In fact, by the year 1500 over 200 European cities have printers, and some books have quite varied features and styles."



(3) Peregrinatio in Terram Sanctam (1490, the first illustrated travel book). From Sanderus Antiquariaat, Ghent, Belgium. <u>http://www.sanderusmaps.com/en/our-catalogue/detail/165416/breydenbach-peregrinatio-in-terram-sanctam.-[speier]-peter-drach-29-july-1490.-/2/ Used with permission.</u>

Schofield-Thompson displayed another projected example on the large screen. "Let's jump ahead another generation to 1517. In this period Bibles are one of the most popular books printed and sold, and one of the most familiar books read.

"The book displayed on the screen is the Complutensian Polyglot Bible, famous among scholars because each page has the original Hebrew, its Greek Septaugint translation, and the Latin Vulgate (4). This is a six-volume edition of the complete Bible in three languages, primarily for biblical scholars.

"As this Polyglot Bible shows, after three generations printers could show a powerful mastery of fonts, languages, layouts, columns, titles, liner notes and many other advances in book design and manufacturing.



(4) Complutensian Polyglot Bible (1517, a masterpiece of Catholic scholarship).
Original is in the Rare Book and Special Collections Division, Library of
Congress; Library of Congress image. http://myloc.gov/Exhibitions/Bibles/
<u>OtherBibles/ExhibitObjects/TheComplutensianPolyglotBible.aspx?</u>
Enlarge=true&ImageId=886c5b91-a9b5-4fbf-
<u>a7e2-776c45f18484%3A8275982c-7354-4f46-</u>
af30-5948c4102449%3A301&PersistentId=1%3A886c5b91-a9b5-4fbf-
a7e2-776c45f18484%3A14&ReturnUrl=%2FExhibitions%2FBibles
%2FOtherBibles%2FExhibitObjects%2FTheComplutensianPolyglotBible.aspx

"Let's finish with the book on the third cart, which will be rolled in front of you now. This book is from 25 years later, in 1542, when the world saw the publication of De Historia Stirpium the remarkable illustrated history of plants by Leonhard

Dan Abelow

Fuchs, a German botanist and physician. The book itself, and its illustrations, clearly look like what we would recognize as a book today."



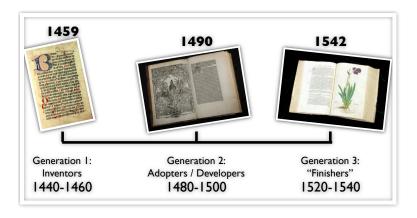
(5) De Historia Stirpium (1542, illustrated history of plants by Leonhard Fuchs <u>http://historyofinformation.com/images/de historia stirpium.jpg</u> Used with permission.

While this third book was being rolled slowly around for viewing, Schofield-Thompson projected a summary timeline on the screen.

She circled the left image with the red dot from her laser pointer and said, "This is where you are. History will look back on the Internet's early decades and think that we look more like the book on the left than the book in the center.

"Never mind the book on the right. When the future looks

back at us and what we've done with the Internet, they're going to say we're at the beginning.



"You've only just invented your versions of the printing press. It's only about thirty years after the introduction of the PC, about twenty years after the start of the mass-market Internet, about fifteen years after the take-up of cell phones, and we're just finishing the first decade of GPS location, smart phones, social networking, mobile applications, and much more that we think is so advanced."

She gave them a moment to think then asked again, "So who are you really, and why are you here today?"

"You're the inventors, which makes you Gutenberg's equivalents. Each of you has invented or advanced your own kind of printing press. You've done something new and you think you're leading edge, but you're just opening a new door. The next step will be the adopters and developers, who will make everything you've done look primitive and obsolete.

"You won't live to see the real finish of what you started. Based on the history of the book, the 'finishers' won't arrive for at least two generations. What you've started will probably take at least 100 years," she said, laser pointing at the finished book on the right for emphasis.

"Normally, you Gutenbergs will be dead and buried before our digital world will figure out what it's becoming." She paused and looked around.

"But today your life won't end before your story has an ending. You're about to see the first attempt to create the book on the right." She circled the last book with her laser pointer.

"Where is our world going? Where will we all wind up?

"I don't know the answer, either," she said. "But from what I hear, you're about to find out."

While Schofield-Thompson supervised her assistants in covering and taking away the rare books, Mallory stood and asked, "Are you ready to consider changing history more than you've already done?

"Let's talk about a new kind of future, where we'll advance beyond the physical world by adding a digital world..."

He paused to let that sink in. "Our always-on digital devices transform where and how we live and work. Our devices and the ways we use them – we're changing our friendships, commerce, entertainment, everything about our human connections.

"Soon the digital world will be more important, more prosperous and more valuable for you than the physical world.

Adding a digital world next to our physical world should take a century or more, as we just heard about with the book – it takes generations to transform how we live.

"Today, in this room, you're the first people who have the chance to leap ahead and consider entering the next digital world in one step, and own part of this new world if you join this project."

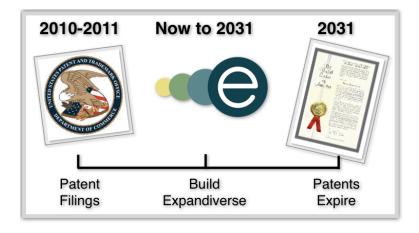
Mallory clicked a remote at the overhead projector and the logo of the US patent office appeared next to the cover page of a patent. "The reason you're here is because the first complete digital world has now been filed for patenting. It's called the Expandiverse and it's starting life as intellectual property. We'll deal with that for about 20 years, until 2031 when its patents expire. But this is also a buildable world, so we can decide when it starts arriving – maybe in just a few years.

"A whole flock of black swans is arriving."

A wave of grumbling was evident. Mallory laughed, "I know a lot of you hate patents, some of you make lots of money from licensing them, some of you use them to fight your competitors, and all of you can be made afraid when patents are used against you."

He paused one more time then asked the last question. "The Expandiverse is patents from the future, and they'll only be here for a short time compared to the generations when they'll be used.

"Here's its timeline until it expires in 2031. Are you going to help own and use it, or are your competitors going to use it



and keep you from entering it?

"You're very lucky to be here and have a chance to answer this question long before it hits you upside the head," he said. "I can't think of a better group to invite. You're the best there's ever been at creating companies that lead the world, but you're here because now you can create the next world...

"And you can own the world you create.

"After this meeting we will talk to each of you about your personal and company role in this future. You can opt in or out, but don't make the mistake of sticking your head in the sand. A digital world is coming. You can profit by building it, or you can be steamrolled by the people around you as they build it – as they wind up owning it and locking you out.

"Think about that. While you do let's start the main event. I'll turn this over to Ladros, a brilliant young economic historian you've probably heard about. When you leave you'll receive a pre-publication copy of his new book, *A Way Out*."

Chapter 2

"ARE WE HAVING FUN YET?" Ladros asked with a grin as he walked from the back of the large conference room. The young economic historian was dressed in worn khakis, a faded dress shirt and an equally worn brown tweed jacket. A recent Oxford graduate, his PhD thesis had been too broad and too transformative for other economists – who attacked it fiercely when it was published.

In this Silicon Valley group many knew about him. Ladros was one of the few 'academics' who could stand in front of this secret meeting and be taken seriously as he described the next digital world. No one else in his field had his combination of renegade attitude, realism and passion for driving a future that might achieve new heights of ambition, prosperity and human success.

"Let's stay with the same parallel to the first generations who invented the book," he began. "We're evolving. But let's apply it to governments and corporations – politics and the economy.

"Both nation states and corporations are new - they're

only two- to three-hundred years old. One of them is out-doing the other. Global corporations have adjusted and gone worldwide. But nations aren't keeping up. They're supposed to be the answer for everyone's needs but they can't satisfy all the needs they claim to serve, and each of them is stuck inside its physical borders while the world turns digital, trans-border and global.

"You see, technology is broader than both of them. It's why you're here to consider owning the future, and why I'm not interested in politicians. A digital world is trans-border and worldwide, but a government is restricted to physical borders and laws, which limit its view. National politicians are shut out because the Earth needs worldwide leadership."

He looked down and laughed, as if thinking of something he wouldn't say. Then he looked up and said, "Don't look so smug. Corporations can't lead either. They're too self-interested. We're stuck. The two main sources of global leadership are countries and corporations, but neither focuses on making the world succeed."

He grew serious. "We won't make it without leadership. Humanity is starting to use nearly every part of the Earth for its needs. Our planet is becoming a humanly managed world. This new age is being called the AnthroScene. By the end of this century nature will survive only in niches, in the pockets where we want it to survive. And most of those will be badly managed."

Ladros shook his head as he saw the reaction. They were the same as everyone else. These were some of the most far-

sighted people on the planet, and they were reacting with the same child-like disbelief he saw everywhere. They knew only today's ideas of what the world is, and their personal expertise, but that wasn't enough.

He held up his hands. "I hoped for more from you, but you're not staying with me. Let's start at the beginning.

"Where does worldwide wealth come from," Ladros asked, raising his voice. "There are 1.7 billion people in the middle class today out of a world population of 7 billion.

"What could make this a wealthy planet by the middle of this century for most people? That would mean five to six billion people in the middle class in just 40 or 50 years, out of a world population of 9 billion at that time?

"If this could be done, today's level of world prosperity would be at least 3 to 4 times larger, which is much more than they're forecast to grow if the world stays the same as it is today."

He paused and waited while he let them realize they didn't know the answer, but wanted to hear it.

"It's simple. Humanity already runs our planet, so why not do it well?"

He pressed a button and a slide was projected overhead, illustrating a timeline. "If we exclude empires whose wealth came from conquests, many of history's biggest wealth revolutions came from countries and periods that were poor in natural resources." Ladros used a laser pointer on the timeline. "Figuring out stone spear tips turned us into hunters. Agriculture turned us from nomads to city states. Weapons and organization turned

city states into kingdoms and empires. The industrial revolution started in Britain and launched the biggest rise in income and wealth in history. Here are a few recent examples you know:

"In just decades after World War II resource-poor and defeated Japan grew into the world's second largest economy.

"The Israelis turned a backward desert wasteland into one of the world's greatest sources of new technologies.

He looked around at the gathered luminaries.

"And Silicon Valley. You don't mine ores or pump oil, but you sure fill up a lot of bank accounts."

He watched them chuckle and added, "Especially *your* bank accounts."

He could feel their attention focus. "The biggest new wealth comes from our minds, our imaginations, our hard work in applying better ideas in smarter ways. Just look at what your world-leading companies really do. You didn't use what was here in the physical world. You took the smartest people you could find, and combined good execution with what's up here." Ladros pointed to his forehead.

Mallory interjected, "But we're Silicon Valley. That's what we do – we take the best new ideas and make them winners. So what's really new today?"

"You and others like you have invented a lot of great things," Ladros said, "but you haven't had the big ideas that move the world's wealth and our lives to the next level."

"Let's compare you to the Industrial Revolution, which invented machine power that replaced human labor. In its first

century the magnitude of world-changing inventions was staggering. It included indoor plumbing, railroads, mechanized agriculture, electric lighting, appliances, the internal combustion engine for automobiles and trucks, telephones, movie cameras and projectors, recorded music and phonographs, radio and television, cameras and roll film, vaccines, antisepsis, public health, reinforced concrete, assembly line factories and revolutionary advances in manufacturing and distribution. These kept transforming the world and how everyone lived. Personal wealth multiplied again and again."

"In our generation, invention's biggest personal impact is the Internet, with connected electronic devices and services. Together, these serve us much better. One of the biggest economic impacts comes from automating all the systems and linking them together, like when you buy something online and it triggers multiple connections in distribution, shipping, personalized marketing, sharing with friends, supply chain restocking, customer service, and much more.

"We're becoming digital, and we're best when we computerize and connect and improve the world we have." He paused, catching his breath.

"But you're not coming up with the big new ways that transform the world from what it is into something radically better. You're not making the world immensely wealthier or bigger. The clearest evidence is the advanced economies whose growth is stuck in neutral, where personal income levels are flat, the middle class is shrinking, and lives are pretty much the same

as they've been for half a century.

"Instead of big ideas that make everything better, a wave of anxiety is sweeping millions who fear they're losing a prosperous future, and a generation of college graduates who are starting to think they'll be even worse off.

"You know what you're missing? Where are the new ways to make entire societies and countries leap ahead? What are the new ways to radically grow everyone's wealth and their quality of life?"

"You're about to go down in history as fumblers. You took centuries of advances that grew the world's prosperity, added digital technology and worldwide networks – some of the most powerful capabilities in history – and produced stagnation and decline.

"If you don't raise your impact in this stage of history, you won't receive the acclaim you imagine for yourself. History will see you as a missed opportunity that caused decline instead of reaching your potentials."

Ladros started pacing as he spoke. "Let's do a thought experiment to show you the big new idea that brought you here today, your black swan, what you're not seeing.

"Assume the world is one big farm." He gestured and an image of a medieval farm was projected on the screen. "Assume everyone who has a job is a serf who's locked into working this farm." He gestured again and more hand drawn serfs appeared, working hard and manually, with a couple of shabbily dressed managers overseeing them.

Ladros noticed and responded to some of the incredulous looks around the room. "Yeah, they're in a top-down world and they're all locked into their roles. Everyone is forced to work this one thought farm. While some people act like owners, the farm actually owns them. Nearly everyone is stuck working a lifetime treadmill where they'll never become wealthy, and most will always have so much debt they're not free."

The looks of disbelief remained. "Okay, so add entertainers and sports to give everyone happy feelings," Ladros said, gesturing at the screen where stages appeared with singing troubadours, actors and primitive football players lined up against each other.

"In this thought world, having only one big farm limits this world's wealth. One farm has only its limited production, limited incomes and many other limits on its peoples' lives – including thought limits on how they think of their world and their opportunities."

Ladros clicked again and a picture of Times Square at rush hour was displayed. "Since humanity began there's been only one physical reality. Everyone lives together in our one physical reality which is run by governments and corporations." He shrugged. "All we've known is our one world, with each of us only in the one place where we're physically located.

"So here we are today in physical reality – that's *our* farm – and we know that's the only reality there is. We're like the serfs and managers in our thought farm, locked into one set of ideas on what our world can be, limited by how much wealth we can

produce, destined to never become a wealthy planet, destined to owe too much debt, destined to stay on treadmills.

"What we need is a big idea. How do we leap beyond our limits? Is there a way that we can own the world instead of the world owning us?

"There's a clue in what ended the Middle Ages – when there were real serfs who were locked down and forced to work until they died. The Age of Discovery helped end that. Explorers sailed around the world and found new lands to settle. Many of the serfs followed them. They went aboard ships and sailed away. They migrated to where they could own land, run their lives, and keep what they earned."

"This morning, you're here because of a similar discovery. Until now, physical reality has controlled us. We're like fish in water who never ask what water is. We automatically know reality controls us and don't even think about it, much less question it.

"Today there's no new 'real' estate available in physical reality because every part of the Earth is owned or managed.

"But the Expandiverse is a big idea because this is the first designed digital world that can stand next to physical reality.

"A digital world offers everyone new kinds of 'digital real estate,' a new Age of Discovery with new 'places'to colonize, with new digital lands to own, live on and profit from.

"To build it we have to imagine what we want our world to be, and how we will each run and improve our part of it when we live in it.

"Suddenly we're discussing what makes this a big idea, how we control reality, instead of reality controlling us.

"Back to our thought experiment. We're turning the world into more than just one farm, more than just one physical world. Much more.

"Starting today our biggest question is whether we live in a physical reality that controls us, or also live in a digital reality that we control.

"And control doesn't mean some large central government or business system, like we're used to. An Expandiverse is controlled by every person individually. Everyone will control reality.

He glanced at Mallory to see how far he should go.

Mallory nodded slightly.

Green light. Countdown to blast off.

"History is about to cross a line. An Expandiverse changes everything.

"Let's start with just three parts of this design for a new kind of world: How we connect, what networks will be, and how to multiply everyone's worldwide resources.

Chapter 3

LADROS SHOVED THEM down the rabbit hole into Wonderland, to meet Alice.

He gestured. The overhead displayed a row of monkeys in front of a row of light bulbs.

"We'll start with how we connect today. Right now we're in the light bulb stage of the Internet.

Then he laughed and said, "All right, I'll be nice."

He pressed a button and displayed a photo of a room from about 1900 – just over a century ago – with a bare electric light bulb.

"Our fabulous new digital world is a baby. We're as primitive as the first light bulbs," he said. "When we use a website it's like turning it on, and when we leave the website we turn it off. When we use a service like online banking we connect to it, use it, then log out – we turn the service on and off. When we make a video call we turn on the connection, do the call, then turn it off.

"We're at the on/off stage of the Internet. Our fabulous digital world is at the level of the first light bulbs at the start of

electricity."

As he looked around he saw some doubts. "Skip the arguments," he said. "Think about what the historian said and the early books you just saw.

"The digital world will expand, just like electricity evolved."

Ladros gestured and displayed a night photo of North America taken from space. There were lights everywhere, making the cities and metro areas glow so much they covered most of the East Coast and other major regions across the country.

"After we added wall sockets and electric appliances we built vast electrified suburbs that ran 24×7 . Over the generations we moved our lives, work, education and play into a continuously electrified lifestyle that's visible everywhere we live.



NASA image: <u>http://www.nasa.gov/multimedia/imagegallery/</u> image_feature_397.html

"So what's going to happen to the Internet?"

Ladros held up the latest iPhone in one hand, an iPad in the other.

"These are a thousand times more powerful than what we had 20 years ago. And 20 years from now these will be a thousand times more powerful than they are today."

He gestured again and the display changed to the simple handwritten words:

on/off >>

evolves into <u>CONTINUOUS</u>

"Leap ahead with me as our on/off connections are replaced by continuous connections to everyone and everything, everywhere.

"The Expandiverse calls these *shared planetary life spaces*. It's plural. You'll have as many as you want.

"With your close family, you'll have a shared... planetary... life... space," he said slowly, enunciating each word.

He gestured and displayed the photo of a group standing scattered around a buffet table in a banquet room.

"It's like walking through a door into a room and everyone is there. Everyone's devices extracts their live image so you see

them in real-time, because you're actually with them. To talk to someone you 'focus the connection.' It's like tapping that person on the shoulder and asking, 'Do you have a minute?'

"Let's flip to a different shared planetary space." He gestured and the overhead displayed a street scene with a few dozen people scattered around a city block. "You're with your key co-workers and you're continuously connected, all over the world. You're available to all of them, and they're available to you. Just work together when you need each other.

"Flip again to a third shared space. Let's say this one's a special project." He displayed the image of a project team sitting around a table in a virtual conference room. "Your team is always together, always accessible, with all the project's resources open and always on. Just focus anyone, any place, any resources you need.

"All your connections are always on, always connected. The Earth has been turned into one room, ready for you to focus anything that's in your personal spaces.

"You'll be worldwide, along with everyone else."

He looked around. They got it. Their constant use of screens made this easy to see.

Now take them into that world.

"When you leave work you can go to personal shared spaces like a private party with friends from college, a club in the Greek Islands or a rock concert in Madison Square Garden.

"But that's just the start. Imagine attending live Olympic events digitally with millions of other people from around the

world. Imagine digitally being in St. Peter's Square every Easter for the Pope's annual message. Or witness a million Hindu pilgrims bathe in the river Ganges at the world's largest religious festival, the Kumbh Mela in Haridwar."

He examined them again. They stayed with him. Interested. Now pull it together.

"The Expandiverse is a radically bigger world for everyone's daily life. It's also a new entertainment media so audiences personally enjoy the world's best events. Think of going to a President's inauguration with 50 million other Americans.

"But you're not overwhelmed. Everyone uses Expandiverse filters and boundaries so the digital people present are the ones you want. Set your boundaries so everyone is there, or only people like you, or just your friends. While the whole world is in this room, your boundaries let you live in world you want. It's your digital reality so you decide who's in it."

He held the iPad in front of him, turning its screen to face the group. "You'll control your continuous digital world, and it will work like doors that automatically open and close as you switch between your shared spaces."

He put down the iPad and said, "When you turn away from this device your continuous reality on it ends." He picked up his iPhone and said, "and your next device recognizes you and automatically continues your digital reality. As you turn to each different device your personal digital world is maintained across all your screens and devices.

"We already use cell phones that you don't turn on and off. Next you'll live in a digital world that's always on, always under your control, and always maintained on the screens surrounding you. Just flip between the shared spaces so you're everywhere you want to be.

"You will have continuous global presences and awareness, with all its tools and resources always open. Just focus anyone and anything from everywhere worldwide – that's what continuous digital reality will be.

"I think most people will prefer it to physical reality, because it will be the world you choose to live in, with everything you want, and boundaries that keep out everything you don't want."

He paused and spoke slowly, deliberately. "If you join this project we will share a private space that we will use to plan, build and manage this new world."

He stopped to let that idea sink in when he saw some look around the room and catch each others' eyes. "Good. Some of you are ready to run a digital Earth."

Most smiled at that. Smart group, he thought.

"Okay, but connectivity is just the first part.

"A second part is networks.

"We're still at the start of understanding worldwide networks. We think networks connect things. Yes.

"But when networks grow up they'll focus on what we do digitally, and help us do it better.

"One big thing they'll do is create and deliver active

knowledge."

Again, he saw blank looks and shook his head. Time for step by step. Again.

"At a high level it's simple – each person is a filter. As you do a task with a networked device you're in a shared planetary life space. The network knows who you are. It knows the device and the applications you're using." Ladros held up his cell phone in one hand, his iPad in the other.

"When the world is digital and networked every step is known. The network collects the steps and relates them to the possible results. So as you take steps it knows which path will produce success – and if each step means you're likely to succeed or fail.

"What's active knowledge? Here's an example from today. You spend a few minutes skimming headlines every day to keep up with the news in your fields. Active knowledge will tell you the best sources for your interests, and how to set up and use each one so you get the best information with the least time and effort. With active knowledge you'll stay as informed as the best people in the world in each of your fields.

"Now, how about an example from tomorrow's Expandiverse? Suppose your job is to modify the live videos from places around the world so they include your company's logos – that's part of constructing and delivering digital realities – what you'll see on your screens.

"During your job active knowledge will show you the best tools to use and the steps to take so the constructed realities look

perfect and seamless, so your logos appear everywhere all over the digital world."

"That won't work," said Adam Wilcox, a thin slightly graying man who started and sold one of the first streaming radio services for about \$30 million. "Every company will put its logos everywhere."

"That's true, most logos will be everywhere," Ladros agreed. "But users will decide whose version of reality they'll see. One of the Expandiverse's boundaries is paywalls, so if your company pays users they'll live in your world and see your name. If you don't pay, you'll be shut out."

"Sounds dangerous and expensive," Wilcox said.

"Different world, different person in control," Ladros said. "Today your mind and attention are sold and bought by others.

"In an Expandiverse you control access to your mind. When you do anything with any networked device, active knowledge is always accessible to guide you, so users will know how to use their boundaries to live in the world they want. One of your new choices will be whether to sell or allow access to your mind. If you do, active knowledge will tell you how to maximize your income from paywalls. The logos you see will be the ones you let in."

Ladros looked around and laughed. Only a few were rocked back in their seats. Most were just amused and didn't understand. Yet.

"Let's look at the big picture of active knowledge. There are billions who are in the lower class and will never have a

university degree, but want to move up to the middle class. Whenever they're ready to leap ahead, active knowledge will help them raise their performance in the best ways, one step at a time.

"Then there are billions who are in the middle class and want to consume more by earning more. Whenever they want a higher level of earnings, active knowledge will show them the best tools and steps to keep climbing.

"Here's one scenario. If upward mobility processes are mapped out they can be sold as a plan. Customers can follow their personal 'Upward Mobility Active Knowledge' to perform better and earn more. If this is combined with a buyer's club, when they earn more they receive a higher level of consumption from their vendors' products and services. The world they see will be their upwardly mobile world and its companies, while other vendors will be shut out unless they pay to be visible.

"As people rise and consume more, they'll all want to live in the world they need – which will be a constructed reality they choose because it supports them and fits what they want.

"No one will go along with this!" said a heavy-set, longhaired man sitting by the window. "That world will kill our privacy. It will be illegal." It was Marshall Pinnock who started an early free web-based email system that ballooned in size until he sold it for a few hundred million dollars.

"Interesting view," Ladros said, his eyes turning hard as he faced Marshall directly. "You don't like networks that track your behavior and respond to your steps by showing you the best ways

to succeed, and delivering only the products and services you want. Then it'll be obvious that you decided to be stupid when everyone else turns smart."

"Everyone can set their active knowledge goals and controls," Ladros continued, "so it will tell you how to use your Expandiverse boundaries to stop others from controlling your mind.

"Keep your privacy and your stupidity. I'll sell your brain all day long."

Some gasped. "The world's backward societies will have privacy," Ladros continued, "while the people who lead the world will have abundant knowledge that flows where it's needed."

He turned to the group. "Everyone here will add active knowledge to your companies. Your employees have no privacy. Your business choice will be to have the best performing employees in the world, or be left behind. And once your employees experience being the world's best, and see how everyone else races ahead, they won't let their families and friends be imprisoned in a backward past.

He turned back to Marshall, a smirk on his face. "It's privacy that will be dead on arrival."

Ladros put a hand in his pocket, relaxed again. "So connections are first and networks second.

"The third shift will be global resources, but this will change how you do business. The entire digital world is about to become a global resource for everyone."

He plunged into this third part of the future. "Active knowledge tells everyone the world's best paths to success. Global resources will let everyone switch to these paths instantly, always using the best products, services, tools and content.

"Everyone will always be the best in the world, something we've never had before in history. The Expandiverse will be a world where everyone can be at the top."

Almost have them, he thought. They want it but don't understand it.

"How does this change your business? Each person doesn't have to buy one product and service at a time. Immediate online access lets everyone instantly and always switch to the world's best devices, services and content."

He saw confusion instead of understanding. It was obvious why.

"Yes, you will be paid for what you sell. But if you're in the short list of the best, your markets will be instantly worldwide and huge.

He paused to let that sink in. A winners-take-all world is coming, he thought, with the fiercest competition imaginable to be on the short list of the best.

"You'd better explain it," Scott Mallory said, interrupting him. "Some think this will destroy their companies, and are ready to declare war."

"Everyone here uses remote controls." Ladros gestured and the overhead displayed PC's, laptops, tablets, televisions, TV cable boxes, digital video recorders, home theaters, web servers

and more.

"You're geeks so you know there are many remote control protocols for what's out there." With another gesture the overhead moved the devices inside a cloud while adding the title *Subsidiary Devices* to it.

"It's more than devices," Ladros said. "Devices all have software, apps, online services and content like books, news, movies and music. With one more gesture the overhead display added boxes for them plus boxes for software and online services.

"The Expandiverse adds a systematic process that turns all of this into a global resource that can be run and used remotely by everyone."

He gestured and added a box to the left of the cloud labeled 'Subsidiary Device Server.' He chuckled as they reacted. Now that the world was turning into digital products and services, everything could be turned into subsidiary devices.

Then he jabbed them harder. "The bad news... a fully digital world means most of your companies will become newspaper businesses unless you adapt. Your revenues will fall off a cliff when nearly everything you sell is turned into subsidiary devices or accessed through them."

He saw some about to explode, ignored them and went on.

"Here's how the way you do business will change. Your market multiplies to include everyone in the world. And Subsidiary Device Servers track use and pay you as your stuff is used – worldwide."

That worked on some of them, he thought. They want to see the

Dan Abelow

whole world turned into one big market that kisses their feet.

He gestured and switched the overhead display. A small digital Earth was on the left showing the planet with silhouettes of people surrounding it. A Subsidiary Device Server was in the middle, and the cloud of 'subsidiary devices' on the right. Across the bottom was an accounting system box with a line to the Subsidiary Device Server.

"Here's the new business process. On the left everyone is in their shared planetary life spaces. As they do things digitally active knowledge tells everyone the best steps and tools, and links them to a Subsidiary Device Server in the middle. Whenever someone wants to be the best in the world they use the products and services on the right. You're paid through the accounting system across the bottom.

"For an example from today, think of photography. There's millions of photographers who use cheap software to edit their pictures because they can't afford to buy the best tools – Photoshop plus its expensive plugins. The way business works today, the best tools have the highest prices, and everyone has to buy their own copy, so they're used by only the few people who can afford them.

"Today a few people have the best tools and know-how so they're the best in the world. Most people will never rise to be their equals.

"But in an Expandiverse the world's best tools, at every price level, are a global resource. Active knowledge tells everyone which tool to use and how to use it best. Most photographers

might only edit pictures once a month, but they could always use the best tools, with active knowledge telling them how to use them quickly and successfully.

"Now jump into this future and see how your company will do business. Active knowledge knows who the users are, the tools and resources they use, and what's really the best choices. The Subsidiary Device Servers know what percentage of people switch to the best choices, their new rates of success, and continuing gaps.

"You'll be an insider so you'll see all of this in real-time. You'll use your inside information to design and sell the world's best and most used products and services. You'll drive the rates of success to the high levels everyone needs.

"You'll create tipping points where active knowledge will switch most of the world to you in a nanosecond. You're the real global resource. You'll sell human success, and when you're chosen, you'll own that piece of the world.

"Stop and think about your combination," Ladros said, emphasizing each point.

"You know what's needed so you can deliver the best choices.

"As you develop, test and prove new advances, they're spread worldwide instantly by active knowledge and subsidiary device servers.

"Your rates of success are part of the active knowledge.

"Those who switch to you become great and advance to the levels of personal success they need. "You get paid."

"It's not such a revolution," Marshall Pinnock said, "It's just the old timeshare model combined with the cloud and an accounting system. Who runs the Subsidiary Device Servers, anyway?"

"That's to be worked out," Ladros said. "You could be one of the vendors, or we could set up just one vendor and you get locked out."

"I don't buy it," said Wade Donovan, a well-dressed executive sitting near the front. "If I'm Apple and I launch a new iPad or iPhone, letting it be used as a subsidiary device turns it into a commodity. I want to be paid full price, not some small per use fee."

"You're right, you should sell your products the way you like them," Ladros said.

"I sure as hell won't give my best products away," Donovan said. "I'll bet a lot of people here agree with me."

"Do it your way," Ladros said. "But those of you who want to be at the top and have the Expandiverse bring you a billion more customers, maybe 2 or 3 billion more customers, then you can become the world's resources."

Ladros turned to Donovan. "Look, everyone will always have the full-time customers who buy their products and use them all the time. But if you add the global resource, you'll also add customers who use your products when they want to be the best in the world.

"Then you can sell them while they use your product,"

Ladros added. "Take the people who were just told yours is the best product in the world, give them immediate success with active knowledge, and hit them with a special offer as they succeed.

"You think you can ring up a few more sales like that?" he asked Donovan. "It's probably ten times more effective than any of your other marketing channels."

Ladros turned back to the group. "If he doesn't join, then the title of 'best in the world' goes to you. Billions of people will try your product before they buy, or just use it and never buy their own. This guy may be happy when he skips that big a market, or he might be out of a job if he chooses to stay in the past and his board wants his head."

Ladros realized this was about to turn into an open discussion.

"Let's end this and show you the results," he said, cutting off the questions.

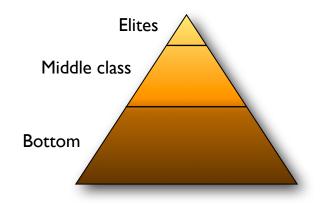
"I told you that you're missing the big ideas that increase wealth and improve societies.

"I told you that your generation is a failure if you produce stagnation and decline for the middle class and their children.

"So what does an Expandiverse add that makes it worth doing?

Ladros displayed a pyramid on the overhead. "Here's the traditional pyramid of wealth and power. A small number of elites are at the top – like you. Some in the middle class work for them or have special skills, and most are at the bottom.

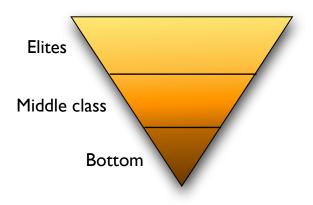
"This is actually out of proportion. With 7 billion people today, only 1.7 billion are in the middle class and a sliver are at the top. Most of today's people are at the bottom."



"The Expandiverse can be a turning point. When we build history's first digital world we get to design our digital reality. The Expandiverse includes systems for everyone to to be globally present, active knowledge so they can succeed, and global resources so everyone has the tools to leap ahead.

"This flips the pyramid upside down without a revolution, and without attacking those at the top."

Ladros gestured and the wide base lifted smoothly through its middle to turn the shape into a diamond, then continued rising until it reached the top. The pyramid had inverted and its point was at the bottom. The labels stayed the same, but slid sideways to fit society's inverted shape.



This sledgehammered them. They'd fought their whole lives to reach the tiny top of the pyramid, and made it. Turning this pyramid upside down reached them on a deeper level than anything he could say.

"This is why you're here. The Expandiverse was created to leap all the way in one step – from today's start to an amazing finish. Why wait the century or more that normal evolution will take, as you saw earlier in the history of the book?

"Everyone can stand on the mountaintop of the world. Just like you enjoy today, they'll know the best choices, use the world's best resources, be guided in reaching for personal success, and you'll know their world is in good hands – yours."

He caught his breath, giving them a chance to see a world where everyone became their equal.

"That's what's new. Just like large search engines do today, the Expandiverse could serve *billions* of people who want more, who need more. Everyone can rise to the top without fighting each other, without dying in bloody revolutions, without being killed by those who govern them because they refuse to wait for a better life.

Ladros laughed and turned to Marshall Pinnock. "You'll be the only one fighting, to save your precious privacy."

Pinnock scowled and Ladros forced himself to stop belittling him. Then he showed them their bottom line.

"Yeah, you already know it. You're not doing this for society. What's the business value to you?

"The Expandiverse multiplies your markets and profits beyond any forecast you've ever imagined possible."

He paused again, letting that sink in.

"Here's the numbers. Today there's about 1.7 billion people in the middle class. If we don't do an Expandiverse and hit today's optimistic growth forecast, by about 2050 the middle class will be about twice as big, about 3.5 billion people – out of 9 billion people in the world's population at that time.

"But if we add an Expandiverse, could the middle class reach 5 billion, or 6 or even 7 billion people? How many billions could rise above the middle class? These numbers multiply the world's prosperity and your wealth by at least 3 or 4 times, way beyond today's most optimistic forecast.

"What will that do to your company's sales and profits if we can triple or quadruple the world's markets?

"What will it do to your market share if you're an insider who sees what's really happening in real-time, and designs your products to fit what active knowledge steers the world to use? "Is that leadership, or is it domination?"

Ladros watched their eyes for a moment. Everyone was focused on him or on the upside down pyramid displayed on the large screen.

"Yeah, you want to be an insider in building and running this. You need to know how to drive the world's consumption upward, and to you."

He could feel their feral alertness sharpen and turned to Wade Donovan. "No one cares about your company and its products. Keep them in stores only, and out of the world's resources.

"People won't care if you lose your company and its driven out of business. A lot of people feel sorry for a dying newspaper, but nobody saves it or its owners."

He tried to make a joke for Donovan's benefit. "Besides, you'll like me me as the son-of-a-bitch down the hall instead of guiding the active knowledge systems that take away your customers."

Didn't work. He saw Donovan's lip curl in disgust. Ladros didn't care. Dinosaurs die.

"Is there a goal for society's evolution," he continued. "If there is, its goal is to turn society's pyramid upside down and create universal prosperity.

"How many generations have lived in squalor, misery and death but survived clinging to the desperate hope that one day a future generation will reach greatness. How many live in the middle class today, afraid that their prosperity will be taken away

from them and their children.

"I believe the arc of history has carried us to this meeting, to this decision, so you have this chance to leap ahead."

He chuckled to himself. "And if you choose this, you can lift the world with you as you turn into the leaders it needs."

"If you build the Expandiverse, if you give the world's people a way to rise to the top and expand its growth, history will look at you as the historic leaders who eclipsed Thomas Edison, Henry Ford, J.P. Morgan and all the others. They'll be the warm-up, while you'll be the real giants who built humanity's future – and you'll be praised for owning the world leading companies that sell it and run it.

"Your only question is whether you want to be one of the next world's leaders, because if you decline others will step up and use these technologies.

"They, not you, will be the insiders who drive this new digital world – and they'll kill your companies."

Ladros turned to Mallory and winked. Mallory caught his eye and gave a slight smile in return. He didn't look as pleased as Ladros expected.

"You're smart," Ladros said, turning back to the group. "Each of you knows how to do your piece of this. Now go do it."

Chapter 4

SCOTT MALLORY STOOD and said, "Some of you must think Ladros went too far. We all now understand how he earned his reputation for pushing too much, for being too passionate, too hard-edged. So let me simplify it.

"First, he's right about one thing. If you could visit the future, learn its technologies and bring them back, you'd have a huge competitive advantage. That's what this is, the first design for the digital world we're heading toward. We'll cherry pick it for the parts we need now and at each stage.

"Second why are all of you all here? Why didn't we invite only one or a few of you? Our goal is to use the world's need for leadership to build the next group of the world's biggest and most dominant companies. That takes a team of superstars, not one or two of them.

"Third and best of all, we will fund this. Here's your deal. This is hard-wired to succeed. If you join you'll see why success is a lock. You just have to use its inside information to deliver the best products and services.

"In return for the money we expect enough seats on your

boards to make sure you stay committed. But if your company doesn't perform we'll replace you. We will exit without keeping much equity, and we'll resign your board seats. This future will be driven by the companies that take your place, not you."

He paused so that could sink in, then finished. "Here's our payoff together. When we build the Expandiverse its markets will be three or four times as big as today, so your profits will be at least three or four times as large. Then when your company dominates your part of those markets, we expect you to earn much more than that.

"We'll be your partner, and we won't be cashing out.

"Together, we'll be the world's new owners."

Any who weren't rocked back in their chairs before were now. The advanced economies had stalled in the information age. New digital devices and services showed massive potentials. But much of the middle class was drowning under an avalanche of lower paying jobs, shrinking their prosperity and shattering their personal and national futures. Millions were scared, certain their lives of hard work could dissolve in front of their eyes.

Now the Expandiverse would be built next to the physical world, a new 'place' where people and societies could leap ahead.

Generations earlier than imagined, the Earth would become a world where everyone will reach for it all.

Especially those in this room.

Mallory words echoed silently without needing repetition. We'll be the world's new owners.

Mallory smiled. "Welcome to the Expandiverse."