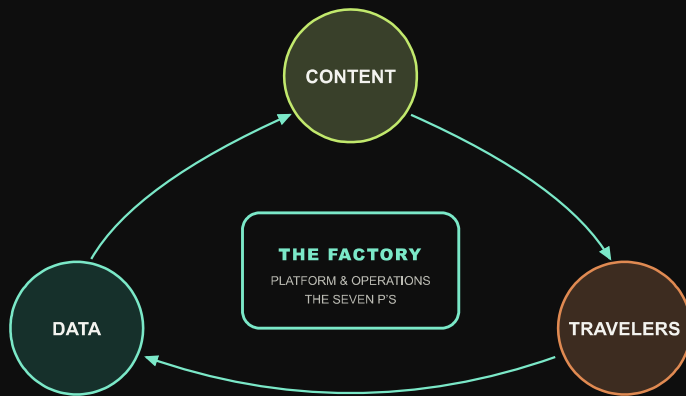




Building Our Factory of the Future

One man, one dog, and the machine that builds the thing that
builds the thing

ABOUT THIS PAPER

This vision paper is drawn from TravelAI's Painted Picture 2024, prepared in October 2024. A painted picture is not a forecast; it is a description of a very definite future we intend to will into being. Portions of this document describe products and capabilities that are in development, in proof-of-concept stage, or that we intend to build. Forward-looking statements reflect our current intent and may evolve as the technology and the needs of our team and travelers develop over time.

*It has been said that **The Factory of the Future** consists of one man and one dog. The man's job is to feed the dog. The dog's job is to ensure that the man does not touch the machine.*

Our job — humanity's job — is to infuse the soul into the machine.

I first spoke about this concept at a conference in March 2018, paraphrasing the late Warren Bennis, MIT professor and visionary leader. It was the day after we had learned we had to pause our RightMesh ICO. My talk was titled, "*A Salute to Our Robot Overlords.*" Even then, with an exhausted heart, I knew that it was better to be safe in treating the coming AGI wave with respect, 'cuz you just never know.

Here we are, almost seven years later, and the future I believed was on the horizon is now coming to fruition.

This is the 2024 Painted Picture for TravelAI, imagining the world 1,000 days from today: July 6, 2027. If past painted pictures have taught us anything, it is this: if we can imagine a future, we can will that future into being. Everything is possible.

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1. The thread of time

It is easy to make connections when looking backwards. The thread of time stretches in a straight line when seen in the rearview mirror.

I can draw a clear connection to where we are today as a company to my first experience working in the sawmill of my youth. My first job in technology came about after I refused to work the factory floor “just one more summer” in between university semesters.

This was 1992. That year, instead of the hot, dusty indoor sawmill, I spent an entire summer in a hot, dusty outdoor log sorting facility gathering 25 points of data along every foot of 1,000 random logs. This raw data was input into a ‘spreadsheet’ program called Lotus 123. The goal? Get enough data to build digital logs so that a custom *SawmillSimulator* could recreate and operate the factory floor all digitally. Four days outside resulted in a day of data entry. **Automation was the name of the game** — both in our measurement efforts and in the digital output of our work.

Notably, the next summer I finally said no more and took a job with *Tourism Vancouver*, advising people on the joys of travel to our wonderful city. My job was to create a *Better Travel* experience.

The thread continues with my first real startup, in late 1997 — when Chris and I first met, connecting over pints in a then-industrial Yaletown, listening to startup pitches while sharing our visions of the future. Mine, in hindsight, would now be called AdTech or MarTech: Stepcast. This is where I formulated my theory of *Expressed Consumer Intent*, first discovered the soon-to-be-named Google AdWords, and developed several of my mantras: **“Marketing is now math,”** and **“Uniform traffic performs uniformly.”**

One night, I actually did have a dream: we had hit product-market fit and my company had started to blossom. In my dream, we had taken over an old shoe factory in Yaletown and that was our office. We started calling our work-from-home environment the Stepcast Home of Engineering — the *S.H.O.E. Factory*, for short.

ONE THREAD, THIRTY YEARS



Figure 1 — The thread of time. From digitizing a sawmill floor in 1992 to a fully virtual travel factory: the same idea, compounding for thirty years — automate the measurable, and let people do what only people can.

SECTION 2

2. Backcasting to a definite future

Which brings us to today, and imagining a world in the not-too-distant future. But how do we get there? Where is *there*?

A corporate exercise exists called **BackCasting**. Whereas forecasting involves the prediction of the future (by definition, unknown), backcasting involves establishing the description of a very definite and very specific future situation. You then walk backwards, slowly retreating to the present day, asking yourself each step of the way: “*What do I need to do today to achieve this vision?*”

It starts with that single step. Then another. Then keep going, in as many stages as necessary. When you work backwards, the nearest short-term step is often achievable, and it is not so daunting in the present day.

What is our vision? When we create The Factory of the Future, we will all be sitting drinking Mai Tais on the beach. This is the future we need to create. We have 1,000 days to achieve this goal.

SECTION 3

3. Why we build

None of this diminishes the universal truths, our ‘Why’, and our vision for the company. Our really big vision remains *Creating Better Travel for One Billion Travelers*. **Creating “Better Travel” is still the force that drives us.**

Why travel? The world becomes a better place when more people travel. Traveling lets you experience other cultures, meet new people (and old friends), and get a different perspective on life.

The biggest obstacle to better travel is the high cost of travel. These high costs are largely driven by the inefficiencies of this massive market. Established players make it seem like it costs a lot to connect those who have with those who want. In fact, our research has shown that **~25% of the cost of travel is paid to the middlemen** — ourselves included — who profit from the inefficiencies of connecting travelers with places not yet explored, and experiences not yet experienced.

Every technology, but especially those classified as technological revolutions, is about introducing efficiencies into a process, allowing you to do it better and faster. The *Age of AI* is no exception. In fact, **AI is all about accelerating human capacity.**

Sipping Mai Tais on the beach will be proof positive that we will have created a more efficient company, Better Travel for many, and our Factory of the Future.

4. A factory you can tour

If the Factory of the Future is the key to our collective future, what is it and what does it do?

This Factory (or FOTF) is not a product, but more of a philosophy. **We are building the thing that builds the thing.** Yes, this is coding — but it is also the organization of the entire group: every team member, full-time employee or contractor, and soon, every AI agent working alongside them.

Picture this: several years into the future, a strategic buyer is enamored with what we have created and our performance, and wants to buy some or all of the company. That buyer wants to do what they normally do before such a significant investment: tour the company and the factory. Yet we are entirely virtual. How can they tour the operation, get a sense of what we do, and what we have built?

In the before times, we used to give culture tours to other entrepreneurs, media, potential investors, and our community about how we did business [*“We were Left. We did things Right”*]. From the moment someone arrived at our office door — where a sign waited with their name on it — every detail was deliberate. A relatively small space took 40 to 60 minutes to tour. Why? Because little things mattered, and the physical space was a manifestation of the company and its values. In Bangladesh, Rakib has built the same, with the nuance of what is unique to Bangladesh. Yet the rest of us work remotely, ensconced in the digital world.

In the future, we want to be able to tour someone around our digital factory. We want to show off how the shoes are made.

By having a Special Place that anyone, anywhere in the world, can interact with, we create a unified team without needing physical space. People are quite good at being effective (getting stuff done); it is much harder to be efficient (getting maximum success from the least input). If we build this well, we bake in efficiency — and that is immensely valuable.

Kites, little things, and the 80%

This is not a new concept for us. When we pitched our “Left of the Dot” business model back in 2010, we proclaimed: **“80% of all businesses are the same.”** Every business has financial systems, people systems, analytic systems, marketing systems, and technology systems. What differentiates each business is the 20% — the brand and business model. We said our success would come from *Automation, Scalability, Repeatability, and Measurability*. **These four pillars are also essential to the success of our Factory of the Future.**

In our very first office, Chris and I wrote our Big Projects in diamond-boxes on a glass wall, with Post-It notes beneath articulating all the Little Things needed to achieve the Big Thing. We had created kites — each curled-up sticky note forming a colourful tail. The Hawaiian proverb, *“The kite*

flies because of its tail,” adorned the walls of every office after that. When you break big projects down into little things, the big things don’t seem so unobtainable any more.

5. The heart of the loop: the Seven P's

Within so much of our strategic planning, we talk about the **Content > Traveler > Data loop**: Content attracts Travelers. Travelers give you Data. Data creates and informs Content. But less talked about is the center of the loop — the Platform and Operations. This is the heart of the Factory of the Future.

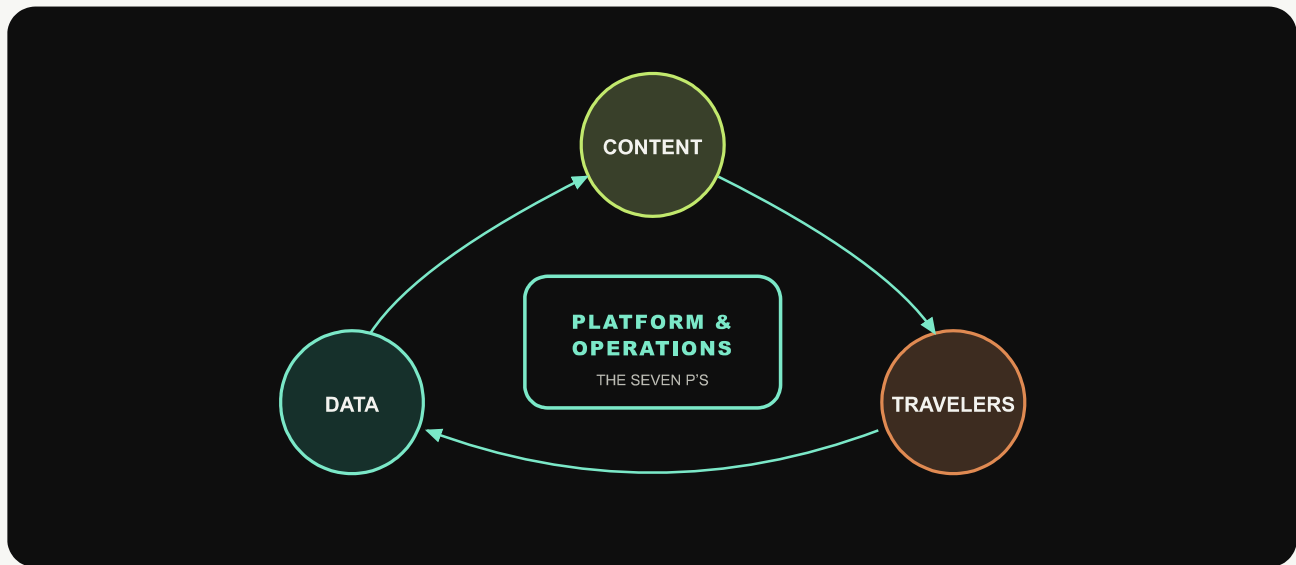


Figure 2 — The Content > Traveler > Data loop. Content attracts Travelers; Travelers give you Data; Data creates and informs Content. At the center sits the Factory: the Platform and Operations that keep the loop spinning.

We have been designing and building components of all of this over the past several years; the Factory of the Future is what brings it all together, organized around seven P's:

Purpose

Our 'Why' — building technology and systems to make travel better. Travel photos and quotes designed to inspire; a heartbeat of real transactions; a global pulse of visitors reminding us that real people are making real travel decisions.

pFinance

From lagging to leading indicators: travel-lane value, cancellation prediction, modeling 700 or 7,000 microsites instead of 70. Data that creates Actions — two Mecca pilgrimage bookings should trigger Arabic brands.

People

A global, asynchronous team — Canada, Bangladesh, Sri Lanka, the Philippines, the Mediterranean. Open 24/7/365. Profiles, check-ins, leave, goals — and soon, digital twins acting as our agents.

Processes

The wiki reborn as a proprietary AI you can converse with. SOPs out of heads and into the Factory, so our future digital selves can learn and improve the processes.

Product

Performance

Where the work gets done: our brands, micro sites, resource blogs, the ContentKitchen, Jira, the STS. The goal: “push a button to make a site.” Part ContentKitchen, part assembly line.

Our dashboarding and metrics system — Sprinkles. The heartbeat of the organization: a forever-evolving, never-finished project, with the ability to drill into any transaction, brand, or visitor.

Partners

Dashboards that measure each relationship: growth, performance, priorities. Partner priorities exposed to people *and* agents — not locked in any one head.

6. An agentic factory

We are entering an Agentic future. Much like our philosophy of Kites, there will be AI Agents tackling small, individual tasks — the little things that are hard for a human to do at scale. Remember the pillars: automation, scalability, repeatability, and measurability. Each task completed moves the Agent (and the company) toward completion or improvement of the big thing.

We need to build a series of Agents to make our internal workflows better, and also to make travel better for travelers and the world. AI technologies are advancing at a pace that cannot be sustained by humans. We simply can't keep up the frenetic advancement. We need to breathe, and we'll need AI Agents to keep up on our behalf.

'People' in our Factory do not have to be people at all. We are about to enter a world in which we have digital twins capable of being our agents in the digital world. Rather than waiting on feedback from me, you could interact with a 'Digital John' acting as my proxy — answering, acting, and leaving a trail for me to audit and correct. Everyone will have their personal AI agent, all-knowing about the company and the individual, consuming the same knowledge we each do daily.

Consider one concrete example. Every day I log in to GoDaddy to look at the domain names we are monitoring. We buy some. We bid on some. When we win, we configure nameservers and prepare for micro-content generation. All of this research and action can, and should, be automated: *"Find me domains that are travel-related, with this organic footprint; join auctions; bid according to the value of the domain; monitor until it lands in our account; then add it to the list of available assets."* That Agent should work 24/7, continually monitoring and getting better.

There are so many individual Agents we can create to make our lives easier and more efficient.

But we do not want to lose the humanity. We the people infuse humanity into the machine.

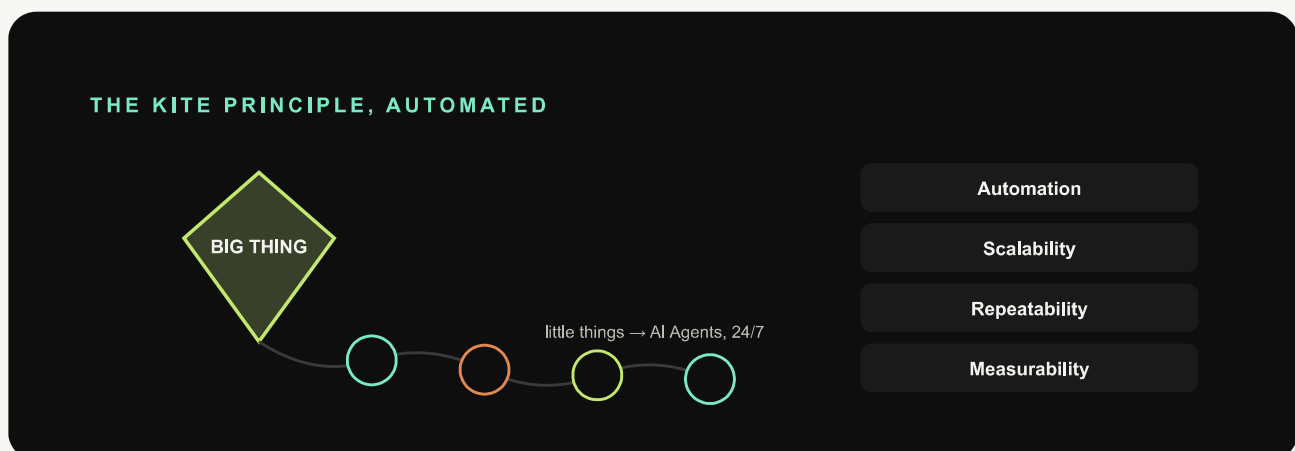


Figure 3 — Kites, little things, and the four pillars. “The kite flies because of its tail.” AI Agents take over the tail — the small, repeatable tasks — measured against the same four pillars we set out in 2010.

7. Predictions for the next 1,000 days

So where is all this going? Here are some of my predictions for the next 1,000 days:

- **Uptime and 'safe days worked' will be key factory metrics.** Factories are expensive to restart when they stop. We need resilient systems that are up and operational while we sleep. The more continuous and resilient, the more efficient.
- **We are entering a world of infinite context windows — of perpetual memory.** Agents will have access — should you grant them permission — to your entire story, including both actively shared and passively gathered information. Combined with data across all of humanity, the machine will appear omnipotent and provide levels of personalization and help unimaginable today.
- **The rise of deepfakes will cause a public backlash against AI** as it becomes nearly impossible to distinguish man from machine. Governments will attempt to put the genie back in the bottle, but will fail. More aggressive 'catch-all' legislation will be rushed through.
- **We will each have a digital twin** with access to your infinite memory, programmed to be your personal agent interacting with other businesses, individuals, and other agents at your behest.
- **Private member travel will extend into the chatbot/agent.** Specific deals and discounts will be available only via this channel.

The factory, assembled

Even within our current thinking, the FOTF is not a complete element. We will be adding elements and components, building new assembly lines, and more. Upon logging in to the organization's new starting page, the heartbeat of bookings continues — a global map showing visitors from all over the world, where they are coming from, where they are going. A pulse of activity: hundreds or thousands of concurrent visitors interacting with one of our brands, and a filter showing where our people are — on a boat in the Mediterranean, in Sri Lanka, Bangladesh, the Philippines, or here in Canada.

Yes, this dashboard will have key metrics we can all look at. But it is about setting the tone for the factory: **there is something happening here, and it is global.**

Our Factory is open 24 hours a day, 7 days a week, 365 days a year. It is functional for our team, yet capable of showing off the Platform and Operations at the heart of the Content > Traveler > Data loop. It is the place where we go onto the factory floor to see what is happening — jumping into the ContentKitchen or into a brand to ensure the machine is running smoothly. And one day, when

a strategic buyer asks for the tour, we will walk them down that factory floor — entirely digital, every detail deliberate — and show them how the shoes are made.

WHAT WE BELIEVE

We believe that if we can imagine a future, we can will that future into being. Everything is possible.

We believe 80% of all businesses are the same — and that our edge is automating the 80% so our people can pour themselves into the 20% that is ours alone.

We believe the kite flies because of its tail: break the big things into little things, and give the little things to agents that never sleep.

We believe a virtual company deserves a factory you can tour — a Special Place where every detail is deliberate.

We believe the machine builds the thing that builds the thing — and that we the people infuse humanity into the machine.

1,000 days. Mai Tais on the beach. See you on July 6, 2027.

John Lyotier

CEO, TravelAI