Eyes on the prize, part IV: The dirty secret about cannatech

How U.S. cannabis technology spend goes from $900mm to $30bn in ten years

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SEP 30, 2023 · PAID

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A quick recap before we dig in:

- Part I: Tactics vs. strategy, and setting the stage for cannatech
- Part II: The $124bn opportunity for cannabis retail (without federal legalization!)
- Part III: The half-trillion dollar economic impact of U.S. cannabis

> *Eyes on the prize, part IV TL;DR* In the final issue of this series, we'll show how **cannabis technology spend can >30x in ten years**, share how cannabis companies think about their tech spend today, and explain why the cannatech landscape is consolidating.

Setting a baseline: $900mm of cannabis technology spend in 2023

Delta Emerald data suggests cannabis operators spend 3-7% of their revenue on technology. [1] The gap between 3% and 7% is driven by whether a company is in growth mode or not, based on our research.

We therefore estimate $900mm of U.S. cannabis tech spend in 2023, or simply the low end of our range, 3%, on $30bn of 2023E U.S. retail sales.

Our research suggests half of this spend goes toward internal headcount and non-cannabis technology like Microsoft and AWS. The other half ($450mm) is spent on cannatech, which we define as *software specifically made for the cannabis industry*.

Weedmaps, Leafly, and Springbig account for over 60% of our $450mm cannatech estimate. [2] Private companies in our network account for another 15%, and a long tail of over 150 companies round out the rest.

How U.S. cannatech spend can >30x in ten years to reach $30 billion

In three words, *growth on growth*: take a fast-growing industry (cannabis) and pair it with an accelerating global trend (tech spend).

About that fast-growing category: **We expect the U.S. consumer to spend $300 billion on cannabis in ten years**. [3] Stay tuned for our next series, “Bigger than Alcohol,” for more on this analysis.

And now, tech spend: we’d never claim to be experts in global corporate IT spend trends. We leave that to the pros, and there isn’t a bigger pro on this topic than Microsoft’s CEO, Satya Nadella:

> *In the coming years, **technology as a percentage of GDP will double from 5% to 10% and beyond, as technology moves from a back-office cost center to a defining feature of every product and service**. But even more important will be technology’s influence on the other 90% of the world’s economy. From communications and commerce, to logistics, financial services, energy, healthcare, and entertainment, digital technology will power the entire global economy as every company becomes a software company in its own right.*
>
> – Microsoft’s 2022 Annual Letter to Shareholders

We expect cannabis technology spend to reach 10% of industry sales in ten years thanks to the leapfrogging effect that we’re seeing in the field. [4] 10% would suggest $30bn of cannabis tech spend in ten years, a 42% CAGR, and $107bn of cumulative spend over the period. [5]

How operators feel about cannatech, and the dirty secret about cannatech today

“A bitter pill” is how we’d summarize a typical cannabis operator’s attitude toward cannatech today.

The dirty secret to cannatech is there’s no one ring to rule them all, no one-stop shop, no ‘business in a box.’ It doesn’t work that way, and probably never will. Sorry!

Common complaints we hear from the field include:

- Too many login screens and tools to manage different parts of the business
- Difficulty getting different parts of the business to “talk” to each other
- Downtime and single point of failure risk
- Unclear or questionable return on investment

Meanwhile, average unit prices at retail have declined consistently across the country. **And limited license markets won’t protect you from the law of supply and demand**: prices have dropped by 10% since January 2019 in California and 51% in Massachusetts since December 2020. [6] The situation for operators is compounded by taxes, high fixed costs, labor, and increasing store density.

But something special is happening. We’re seeing sophisticated operators use technology to emerge stronger, leaner, and better informed to answer questions like:

- Am I buying too much inventory? And which products and brands should I stock?
- Am I discounting too much? Which customer *actually needs* a discount to get them back to my store?
- What is the next SKU I should produce?
- Am I making a mistake by focusing on average transaction value? Should I instead optimize for purchase frequency?

If you’re a cannatech company, you might think your solution answers one, or multiple, of these questions. But guess what? Operators have businesses to run and new problems to solve every day. They don’t have the time to brush up on their analytics skills and dive into a spreadsheet for hours on end. Nor do they have the resources to hire dedicated analysts. Cannatech must transition away from repurposing data, toward actionable insights. **Everyone's goal should be to emulate Netflix and what it does for its customers.** [7]

Why cannatech is evolving from point solutions to platforms

More than 160 cannatech providers service the industry today. At last count, their aggregate enterprise value clocks at $10.6bn [8], and this figure has the potential to >**20x over the next ten years.** [9]

But we aren't off to the races *yet*. **Consolidation is the first step, as it has been in countless other industries.** The market is demanding a more unified experience, and we see emergent cannabis platforms having more centralized functionality for their customers.

Some try to build their way there. Others will choose to buy functionality and scale through acquisitions. Today's capital-constrained environment presents an opportunity for the latter. With so many companies, the cannatech ecosystem is full of talented teams, products, and technology in the market that would make for ideal bolt-on acquisitions.

We only need to look at what's happened in technology broadly to understand cannatech's future: **There are 69 software or data processing companies with enterprise values greater than $10bn, only one of which (Snowflake) is a point solution**; [10] all other companies in this cohort are platforms.

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1 Delta Emerald data platform and analysis, including a deep dive with an MSO with over $100mm of revenue (thank you – you know who you are!). Includes costs for specialized labor, support services like AWS, and cannatech services. Interestingly, the cannabis apple doesn't fall far from the traditional retail tree, where tech spend ranges between 2% to 7% of revenue.

2 Based on the 2Q23 run-rate revenues of Weedmaps, Leafly, and Springbig of $203mm, $43mm, and $29mm, respectively, per public filings.

3 Includes the $124bn of dispensary sales cited in earlier chapters of this Dispatch series and cannabis spend that we expect to occur outside of traditional dispensary retail channels.

4 For instance, we've seen cannabis retailers that are more sophisticated than traditional food or apparel retailers when it comes to customer segmentation and discounting. They weren't born that way, but instead are the product of deliberate effort and a commitment to using technology to solve business problems.

5 Assumes tech spend as a % of industry sales increases 70bps annually.

If, instead of 10% of industry revenue, you apply Satya's "10% of GDP" estimate to our half-trillion cannabis GDP estimate, we arrive at ~$50bn of cannabis tech spend.

6 Delta Emerald data platform and analysis.

7 Credit to Andrew Watson in Quarterly Pitch Day Q3: Happy Cabbage, Aug 2020.

8 Pitchbook data as of April 2023 and Delta Emerald data platform.

9 Delta Emerald data platform and analysis.

10 Sentieo screener for companies with market capitalizations at or above $10bn as of September 24, 2023. IT sectors include: application software, data processing & outsourced services, and internet services & infrastructure.

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