

The Wrapper Economy: Why Building Giants Creates More Value Than Building Giants

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Abstract

- The health tech industry exhibits persistent anxiety about building "mere wrappers" around Quest Diagnostics and LabCorp infrastructure, parallelir

similar concerns in healthcare AI applications built on OpenAI and Anthropic APIs.

- Historical analysis of successful technology companies reveals that wrapper businesses often create more market value than their underlying infrastructure providers through superior user experience, market positioning, and operational efficiency.
- Cryptocurrency markets provide compelling evidence of this phenomenon, as stablecoin wrappers (DAI, USDC, USDT, USDe) collectively command market capitalizations exceeding their underlying USD reserves through risk management, accessibility, and programmability features.
- The wrapper economy represents a natural evolution of technological progress where value accrues to companies that optimize the interface between computing infrastructure and end-user needs rather than to those who build the infrastructure itself.
- Strategic recommendations for health tech entrepreneurs include embracing wrapper economics while focusing on sustainable differentiation through superior customer experience, regulatory navigation, and market-specific optimization.

The most successful companies in technology history have been wrappers. This statement makes entrepreneurs uncomfortable because it challenges the mythology of innovation that pervades Silicon Valley thinking. We celebrate the pioneers who built the railroads, but the real fortunes were made by those who figured out what to do with them. We lionize the inventors of the internet, but the trillion-dollar companies emerged by wrapping that infrastructure with user-friendly interfaces. Yet in health technology, particularly in diagnostics and artificial intelligence applications, entrepreneurs persist in viewing wrapper businesses as somehow inferior or vulnerable compared to companies that build fundamental infrastructure.

This perspective represents a fundamental misunderstanding of how value creation works in complex technological ecosystems. The anxiety about being "just a wrapper"

around Quest Diagnostics and LabCorp in the home testing space, or "just a wrapper" around OpenAI and Anthropic in healthcare AI, reveals a cognitive bias toward infrastructure over application layer innovation. This bias not only misallocates entrepreneurial energy but also overlooks some of the most compelling value creation opportunities in modern healthcare technology.

The reality is that wrapper businesses often create more sustainable competitive advantages and generate higher returns than their underlying infrastructure providers. They do this not through technological breakthroughs in core capabilities but through superior user experience design, market positioning, regulatory navigation, and operational optimization. These advantages, while perhaps less technically impressive than building a new laboratory network or training foundation models from scratch, often prove more durable and valuable in practice.

Chapter 1: The Laboratory Giants and Their Inevitable Dominance

Quest Diagnostics and LabCorp represent one of the most entrenched duopolies in American healthcare, collectively processing over 80 percent of clinical laboratory tests performed in the United States. Their combined market capitalization exceeds 40 billion dollars, built on decades of infrastructure investment, regulatory compliance, and relationship building with healthcare providers and payers. These companies operate thousands of patient service centers, employ tens of thousands of phlebotomists and laboratory technicians, and maintain sophisticated logistics networks capable of processing millions of specimens daily while meeting stringent quality and turnaround time requirements.

The barriers to competing directly with this infrastructure are genuinely formidable. Building a laboratory network requires massive capital investment in equipment, facilities, and personnel, along with navigation of a complex regulatory framework including CLIA certification, state licensing requirements, and quality assurance protocols. The operational complexity of maintaining cold chain logistics, managing specimen integrity, and ensuring accurate results at scale represents decades of

accumulated institutional knowledge that cannot be easily replicated. More importantly, the network effects inherent in laboratory testing create increasing returns to scale that make direct competition economically irrational for most new entrants.

However, the dominance of Quest and LabCorp in laboratory infrastructure creates precisely the conditions where wrapper businesses can thrive. These infrastructure providers excel at operational efficiency and regulatory compliance but face natural constraints in customer experience innovation, market specialization, and rapid iteration on user interfaces. Their business models optimize for volume processing of standardized tests rather than for consumer-friendly experiences or specialized market segments with unique needs.

This creates a classic innovator's dilemma scenario where established players cannot pursue certain market opportunities without cannibalizing their existing business models or compromising their operational efficiency. Quest and LabCorp serve thousands of healthcare providers and must maintain interfaces and processes that work for the lowest common denominator of technical sophistication. They cannot optimize their customer experience for direct-to-consumer markets without potentially alienating their core B2B customers, nor can they rapidly iterate on testing protocols without disrupting their standardized operational processes.

The emergence of companies like Everlywell, LetsGetChecked, and 23andMe demonstrates how wrapper businesses can create substantial value by optimizing the interface between laboratory infrastructure and end consumers. These companies do not perform the actual testing but instead focus on user experience design, marketing, customer support, and results interpretation. Everlywell, for example, achieved a valuation exceeding 2.9 billion dollars at its peak by creating a seamless online ordering experience, providing clear instructions for at-home sample collection, and delivering results through an intuitive digital platform.

The key insight is that while Quest and LabCorp possess irreplaceable infrastructure advantages, they face structural limitations in addressing certain market segments and use cases. Wrapper businesses succeed by identifying these gaps and building

specialized solutions that leverage the underlying infrastructure while optimizing for specific customer needs and preferences. This approach allows them to capture value without requiring the massive capital investment and operational complexity associated with building laboratory networks from scratch.

Chapter 2: The AI Infrastructure Parallel

The healthcare AI landscape exhibits remarkably similar dynamics to the laboratory testing market, with OpenAI, Anthropic, Google, and other foundation model providers serving as infrastructure layers that enable a vast ecosystem of application layer companies. The development of large language models requires computational resources, research expertise, and financial investment that place it beyond the reach of most healthcare companies. Training GPT-4 reportedly cost over 100 million dollars and required months of computation on thousands of specialized processors, while maintaining and improving these models requires ongoing investment in research, infrastructure, and safety testing.

For healthcare AI applications, attempting to build foundation models from scratch represents a profound misallocation of resources and strategic focus. Healthcare companies possess domain expertise, regulatory knowledge, and market relationships that are far more valuable when applied to optimizing AI applications rather than competing in the foundational model space. Companies like Abridge, Nuance DAX, and Suki have created substantial value by building specialized healthcare applications on top of general-purpose AI infrastructure, focusing their engineering and product development efforts on healthcare-specific workflows, privacy requirements, and integration challenges.

The wrapper approach in healthcare AI enables companies to benefit from the rapid pace of improvement in foundation models without bearing the costs and risks of developing these capabilities internally. OpenAI releases model improvements regularly, with each iteration offering better performance, lower costs, or enhanced capabilities that automatically improve all applications built on their infrastructure. Healthcare AI companies that focus on application layer innovation can compound

these improvements with their own domain-specific optimizations, creating products that improve faster than would be possible if they were constrained by their own research and development cycles.

Moreover, the regulatory environment in healthcare creates additional barriers to building AI infrastructure while simultaneously creating opportunities for specialized wrapper applications. Foundation model providers must balance capabilities and safety considerations across numerous use cases and industries, often resulting in conservative approaches to potentially sensitive applications. Healthcare-focused wrapper companies can implement additional safeguards, validation procedures and domain-specific fine-tuning that make AI models more suitable for medical applications while maintaining compliance with healthcare regulations and professional standards.

The success of companies like PathAI, which builds AI applications for pathology using commercial computer vision infrastructure, or Tempus, which applies machine learning to oncology data without building its own foundation models, demonstrates how wrapper businesses can create substantial value in healthcare AI. These companies focus their resources on solving healthcare-specific problems rather than on competing with Google or OpenAI in general-purpose AI capabilities, allowing them to move faster and serve their markets more effectively than would be possible with a vertically integrated approach.

The economic logic is compelling: healthcare AI wrapper companies can access state-of-the-art capabilities through APIs while focusing their engineering and business development efforts on problems that are uniquely valuable in healthcare contexts. This specialization allows them to create better products for their specific use cases while benefiting from continued improvements in underlying AI capabilities that they did not have to fund or develop themselves.

Chapter 3: The Crypto Wrapper Phenomenon

The cryptocurrency ecosystem provides perhaps the most illuminating example of how wrapper businesses can create value that exceeds their underlying assets. Stablecoins represent one of the purest forms of wrapper businesses in existence and are explicitly designed to maintain parity with underlying fiat currencies while providing additional features like programmability, transferability, and accessibility that the underlying assets cannot offer directly.

USDC, issued by Circle, maintains a market capitalization that fluctuates around \$30 to \$35 billion dollars while holding equivalent reserves in US dollars and treasury securities. The company generates revenue through yield on reserves and transaction fees, creating a business model that extracts value from the wrapper layer rather than from currency creation or monetary policy. Tether's USDT maintains an even larger market capitalization, often exceeding 80 billion dollars, making it one of the most valuable cryptocurrency projects despite being fundamentally a wrapper around traditional financial assets.

DAI presents an even more sophisticated example of wrapper value creation, using a decentralized autonomous organization structure to create a USD-pegged stablecoin backed by cryptocurrency collateral. The MakerDAO protocol that governs DAI has created a market capitalization for its governance tokens that reflects the value of managing a decentralized wrapper around USD purchasing power. USDe, developed by Ethena Labs, represents another innovation in stablecoin design, using delta-neutral trading strategies to maintain USD parity while generating yield through derivatives trading.

These stablecoins succeed because they provide capabilities that USD cannot offer directly in digital contexts: programmable money that can be transferred instantly across borders, integrated into smart contracts, and traded 24/7 without traditional banking infrastructure. The wrapper layer adds genuine utility that justifies its existence and enables new use cases that would be impossible with traditional USD alone. Users willingly accept the additional complexity and potential risks of stablecoins because they provide access to capabilities that are valuable enough to justify the trade-offs.

The stablecoin market demonstrates several key principles that apply to wrapper businesses more generally. First, wrappers can create value by improving accessibility and user experience even when the underlying asset or service remains unchanged. Second, wrappers can enable new use cases and integrations that would be difficult or impossible with the underlying asset alone. Third, successful wrappers often introduce additional features like programmability, composability, or enhanced security that justify their existence beyond simple convenience.

Perhaps most importantly, the stablecoin example shows how wrapper businesses achieve market capitalizations that approach or exceed the value of their underlying assets when they successfully solve important user experience or accessibility problems. This phenomenon occurs because the wrapper layer captures value not from the underlying asset but from the additional utility it provides to users who cannot access that utility through the original asset alone.

The crypto space also demonstrates how multiple successful wrapper businesses coexist around the same underlying asset, with USDC, USDT, DAI, and USDe all maintaining substantial market capitalizations despite targeting the same fundamental use case of USD-pegged digital currency. This suggests that wrapper markets can support multiple successful competitors when they differentiate through different approaches to risk management, user experience, regulatory compliance, and technical implementation.

Chapter 4: Why Wrappers Win: The Economics of Abstraction

The success of wrapper businesses reflects deeper economic principles about how value creation works in complex technological systems. As technology becomes more sophisticated and specialized, the gap between infrastructure capabilities and user needs tends to widen, creating opportunities for abstraction layers that bridge this gap. Infrastructure providers optimize for technical performance, operational efficiency, and broad applicability, while users need solutions optimized for their specific contexts, workflows, and preferences.

This dynamic creates what economists call complementary assets, where the value of infrastructure increases as better applications are built on top of it, while the value of applications increases as the underlying infrastructure improves. Wrapper businesses position themselves to capture value from both sides of this relationship: they benefit from improvements in underlying infrastructure while also creating additional value through their application layer innovations.

The economics of wrapper businesses often prove superior to infrastructure businesses because they can achieve higher asset utilization and faster iteration. Infrastructure requires massive upfront investment in physical assets, regulatory compliance, and operational systems that must be amortized over many years. Wrapper businesses can begin generating revenue immediately while benefiting from infrastructure improvements funded by other participants in the ecosystem.

Furthermore, wrapper businesses typically enjoy better unit economics because they can focus their operations on high-value activities like customer acquisition, user experience optimization, and market development while outsourcing commodity functions to specialized infrastructure providers. This specialization allows each layer of the stack to optimize for what it does best, creating overall system efficiency that benefits all participants.

The risk profile of wrapper businesses also tends to be more attractive than infrastructure businesses in rapidly evolving technological contexts. Infrastructure investments become stranded costs when technological paradigms shift, while wrapper businesses can adapt to new infrastructure options with relatively minimal switching costs. Healthcare AI companies built on OpenAI APIs can potentially migrate to Anthropic, Google, or future providers as technology and pricing evolve, while companies that invested heavily in building their own AI infrastructure face more difficult strategic decisions when better alternatives emerge.

Market timing advantages also favor wrapper businesses in many contexts. Infrastructure development requires long lead times and substantial upfront investment, making it difficult to time market entry precisely. Wrapper businesses can enter markets more quickly when conditions are favorable and scale their

operations in response to demand rather than having to build capacity in advance based on uncertain projections.

The competitive dynamics in wrapper markets also tend to be more favorable than infrastructure markets. Infrastructure businesses often face winner-take-all or winner-take-most competitive dynamics due to network effects and economies of scale, while wrapper businesses can differentiate through customer experience, market focus, and operational excellence. This allows multiple wrapper businesses to succeed in the same market by serving different customer segments or optimizing different use cases.

Chapter 5: The Value Creation Paradox

The most counterintuitive aspect of wrapper economics is that businesses built on top of infrastructure often create more total value than the infrastructure itself, despite appearing to be dependent on that infrastructure for their core functionality. The paradox occurs because wrapper businesses can capture value from network effects, market positioning, and customer relationships that are orthogonal to the underlying infrastructure capabilities.

Consider the relationship between Shopify and the underlying web infrastructure on which it operates. Shopify creates billions of dollars in value by providing an e-commerce platform that makes it easy for merchants to create online stores, despite being built entirely on standard web technologies that anyone can access. The value creation comes not from building unique infrastructure but from solving complex user experience and business workflow problems that exist at the application layer.

In healthcare diagnostics, companies like Everlywell create value by solving problems that exist independently of laboratory infrastructure capabilities. Consumers need guidance on which tests are appropriate for their health concerns, clear instructions for sample collection, timely notification of results, and interpretation of findings in the context of their individual health profiles. These value creation opportunities exist regardless of which laboratory processes the actual tests, and in fact may be better

addressed by companies that specialize in consumer experience rather than lab operations.

The value creation paradox also manifests through market expansion effects. Wrapper businesses often create entirely new market categories by making infrastructure capabilities accessible to customer segments that could not previously access them. Direct-to-consumer genetic testing companies like 23andMe created a consumer market for genetic information that did not exist when genetic testing was only available through healthcare providers. The wrapper layer enabled new use cases, customer segments that expanded the total market for genetic testing services.

Healthcare AI applications demonstrate similar market expansion dynamics. Electronic health record systems have contained vast amounts of clinical data for decades, but this data was largely inaccessible for decision support and quality improvement applications until AI wrapper companies created interfaces that could extract actionable insights. Companies like Notable, which uses AI to automate clinical documentation, create value by making existing healthcare data more usable rather than by creating new data sources.

The paradox extends to risk and return profiles as well. While wrapper businesses appear more vulnerable because they depend on external infrastructure, they often actually face lower total risk because they can diversify their infrastructure dependencies and focus their internal risks on areas where they have control and expertise. A healthcare AI company that uses multiple AI providers can potentially achieve better risk-adjusted returns than a company that builds its own AI infrastructure because it can optimize its risk exposure across the different components of its value chain.

Moreover, wrapper businesses can often achieve higher return on invested capital because they require less capital investment to reach market leadership position. Building market-leading customer experience, brand recognition, and operational efficiency typically requires less capital than building market-leading infrastructure, allowing wrapper companies to achieve attractive returns with smaller initial investments.

Chapter 6: Platform Risk and the Illusion of Dependency

The most frequently cited concern about wrapper businesses is platform risk: the possibility that underlying infrastructure providers will change their terms, prices, or availability in ways that negatively impact dependent businesses. This concern reflects legitimate strategic considerations but often overstates the actual risks while understating the corresponding advantages of wrapper approaches.

Platform risk analysis must consider the economic incentives of infrastructure providers, which typically favor supporting healthy ecosystems of dependent businesses rather than extracting maximum short-term value from them. Quest Diagnostics and LabCorp benefit from the growth of direct-to-consumer testing companies because these companies expand the total market for testing services while requiring minimal additional infrastructure investment. Similarly, OpenAI and Anthropic benefit from successful healthcare AI applications because they create demonstrated value for capabilities while providing feedback that improves the underlying models.

Infrastructure providers also face competitive constraints that limit their ability to exploit dependent businesses. In the AI space, competition between OpenAI, Anthropic, Google, and other providers creates pressure to maintain favorable terms for application developers. In laboratory testing, while Quest and LabCorp maintain dominant positions, they still compete with each other and with specialized testing companies, creating some constraint on pricing and terms.

The perception of dependency also overlooks the corresponding dependencies that flow in the opposite direction. Infrastructure providers depend on application layer companies for market development, customer acquisition, and innovation in use cases. Successful wrapper businesses become valuable customers and partners that infrastructure providers have incentives to support and retain. Large healthcare companies represent significant revenue streams for foundation model providers and often influence product development priorities and technical roadmaps.

Diversification strategies can further mitigate platform risk without eliminating advantages of wrapper approaches. Healthcare AI companies can build applications that work across multiple foundation models, reducing dependence on any single provider. Home testing companies can potentially work with multiple laboratory partners or maintain relationships with both Quest and LabCorp to ensure competitive terms and backup capabilities.

The alternative to wrapper approaches often involves accepting different but potentially larger risks. Building infrastructure internally requires massive capital investment, operational complexity, and regulatory compliance that may exceed platform risk in both probability and potential impact. Healthcare companies that attempt to build their own laboratory networks or AI capabilities face execution technology risk, and market timing risk that may be more difficult to manage than platform risk associated with wrapper approaches.

Historical analysis suggests that platform risk concerns are often overstated relative to actual outcomes. Successful wrapper businesses typically develop sufficient scale and value to their platform providers that they achieve favorable long-term relationships rather than being exploited or eliminated. Amazon Web Services has created enormous value for application developers rather than extracting maximum rent despite having the technical ability to do so. Similarly, Apple's App Store, while sometimes controversial in its policies, has created trillions of dollars in value for application developers rather than simply extracting value from them.

Chapter 7: The Future of Wrapper Economics in Health Tech

The trajectory of healthcare technology suggests that wrapper economics will be increasingly important as the underlying infrastructure becomes more sophisticated and standardized. As AI capabilities continue to improve, the competitive advantage will shift toward companies that can apply these capabilities effectively to specific healthcare problems rather than toward companies that build the capabilities themselves. As laboratory testing becomes more automated and standardized,

differentiation will occur primarily through customer experience, market position and operational efficiency rather than through testing capabilities.

Regulatory trends also favor wrapper approaches in healthcare contexts. As healthcare regulations become more complex and specialized, companies that focus on regulatory compliance and healthcare-specific optimization will have advantages over general purpose infrastructure providers that must balance healthcare requirements against other use cases. Healthcare wrapper companies can implement additional safeguards, validation procedures, and compliance measures that make their solutions more suitable for healthcare applications while maintaining access to best-in-class underlying capabilities.

The emergence of healthcare-specific cloud platforms and APIs will create new opportunities for wrapper businesses by reducing the complexity of integrating different healthcare infrastructure components. Companies like Redox, which provides healthcare API integration services, and Particle Health, which enables access to patient data across different healthcare systems, are building the middle layer that will enable more sophisticated healthcare wrapper applications.

Artificial intelligence will likely accelerate the trend toward wrapper economics making it easier to build sophisticated applications without requiring deep tech expertise in AI development. As AI tools become more accessible and user-friendly, the barrier to building healthcare AI applications will decrease, while the importance of healthcare domain expertise, regulatory knowledge, and customer relationships will increase.

The internationalization of healthcare technology also creates opportunities for wrapper businesses that can adapt successful models to different regulatory environments and market conditions. A home testing company that succeeds in the US market can potentially expand internationally by partnering with local laboratories and infrastructure rather than building global laboratory capabilities internally. Similarly, healthcare AI applications can potentially expand to new markets by adapting to local healthcare systems and regulatory requirements while maintaining access to state-of-the-art AI capabilities.

Investment patterns in healthcare technology are already reflecting the advantage of wrapper approaches, with venture capital and strategic investors increasingly focusing on application layer companies rather than infrastructure development. This trend will likely accelerate as infrastructure capabilities become more commoditized and the value creation opportunities shift toward application layer innovation.

The future success of healthcare wrapper companies will likely depend on their ability to create sustainable competitive advantages through superior execution rather than through proprietary technology. This will require excellence in customer experience design, operational efficiency, regulatory compliance, and market development rather than breakthrough innovation in core healthcare or technology capabilities. Companies that can master these competencies while leveraging best-in-class infrastructure will likely achieve better outcomes than companies that attempt to build everything internally.

Conclusion: Embracing the Stack

The anxiety about building wrapper businesses reflects an outdated model of how value creation works in modern technological ecosystems. The most successful technology companies of the past two decades have been primarily wrapper businesses that created value by optimizing interfaces between complex infrastructure and user needs rather than by building infrastructure from scratch. Google built a wrapper around the internet that made information more accessible. Facebook built a wrapper around communication infrastructure that made social interaction more convenient. Amazon built a wrapper around logistics infrastructure that made commerce more efficient.

Healthcare technology represents a particularly fertile environment for wrapper business success because healthcare combines complex underlying infrastructure with diverse and specialized user needs that are poorly served by one-size-fits-all solutions. The combination of regulatory complexity, professional workflows, and individual health variability creates numerous opportunities for companies that can bridge the gap between infrastructure capabilities and user requirements.

The companies that will create the most value in healthcare technology will likely be those that embrace wrapper economics while focusing on sustainable differentiation through superior customer experience, regulatory compliance, and market positioning. Rather than viewing themselves as dependent on external infrastructure, these companies should understand themselves as participants in collaborative ecosystems where different participants optimize for different types of value creation.

The future of healthcare technology will be built by companies that understand how to leverage infrastructure rather than by companies that attempt to recreate it. This requires a different set of competencies and strategic priorities than traditional technology development, but it also offers the potential for more capital-efficient and rapidly scalable business models that can create substantial value for healthcare stakeholders.

For healthcare technology entrepreneurs, the question should not be whether to build wrapper businesses, but rather how to build wrapper businesses that create sustainable competitive advantages and genuine value for healthcare stakeholders. This requires deep understanding of customer needs, excellent execution capabilities, and strategic thinking about how to position within complex ecosystem relationships. Done well, wrapper businesses represent one of the most attractive opportunities in healthcare technology today.

The discomfort with wrapper economics reflects a romanticized view of innovation that privileges technological novelty over practical value creation. The reality is that most users care about outcomes rather than underlying technology, and the companies that focus on delivering superior outcomes while leveraging best-in-class infrastructure will typically outperform those that attempt to build everything internally. In healthcare, where outcomes literally involve life and death consequences, this focus on practical value creation over technological showmanship is not just good business strategy but also an ethical imperative.

The wrapper economy in healthcare technology is not a consolation prize for companies that cannot build infrastructure. It is the natural evolution of how collaborative technological systems create and distribute value, and the companies that understand

this dynamic will have substantial advantages over those that continue to pursue outdated models of vertical integration and infrastructure development. The future belongs to companies that can orchestrate capabilities rather than those that attempt to own them entirely.

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