

ELEVATING CREATIVE PERFORMANCE WITH PREDICTIVE CREATIVE AND AI



Predictive Creative and
Artificial Intelligence (AI)



yieldmoTM

MASTERING THE LAST MILE OF OPTIMIZATION FOR MARKETERS:

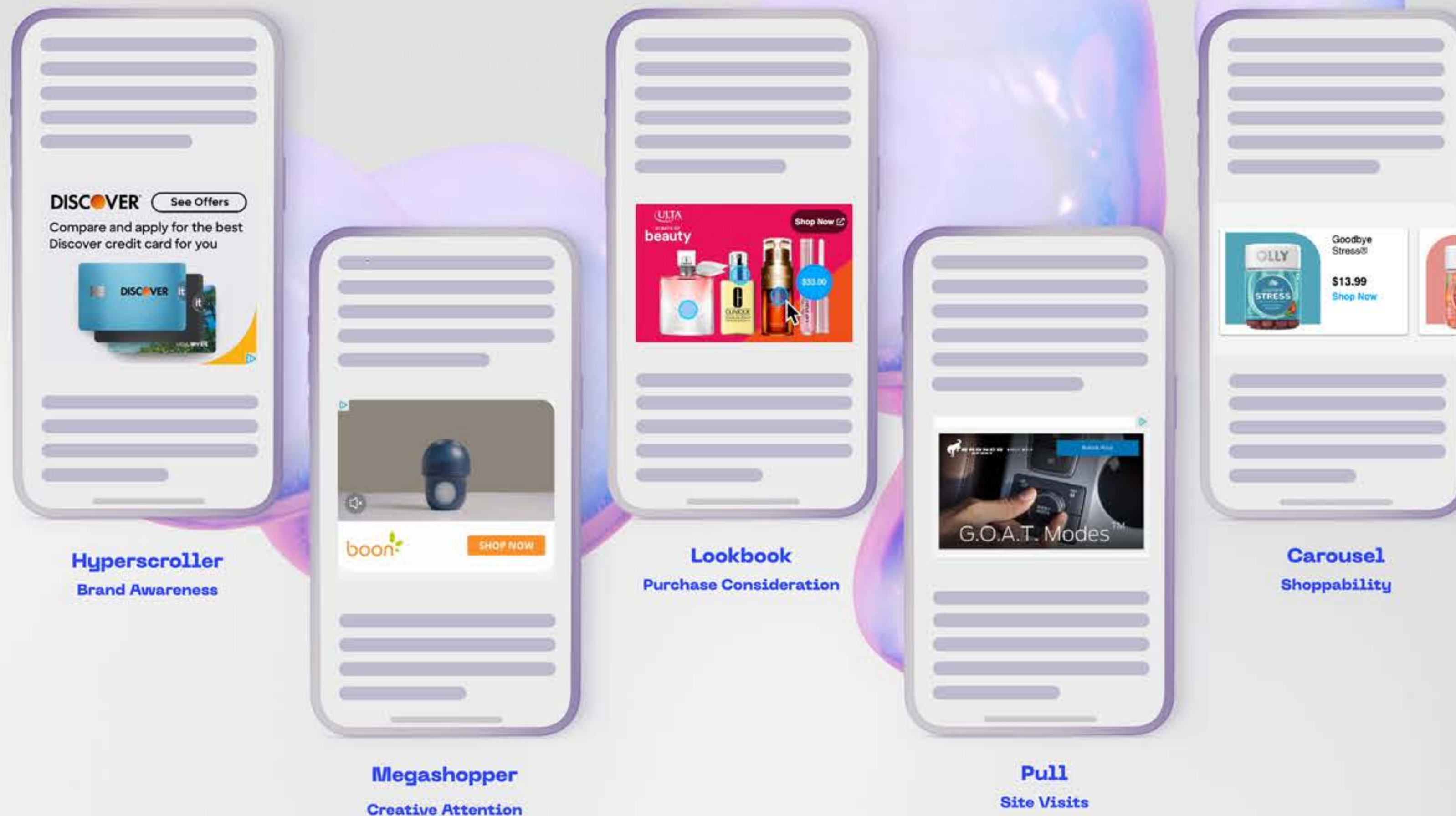
How to incorporate AI into media buys to elevate creative performance with Predictive Creative

Advertisers spend a lot of time and resources designing the perfect creative to capture the attention of their target audience. Oftentimes, they leave the very last and critically important step, where the creative and the user finally interact, to chance. At this crucial moment exists the creative format, where the user experiences the synthesis of the advertiser's hard work and planning.

The right creative format amplifies the core underlying creative, to create a unique interactive experience.

An intelligent creative format drives engagement with customers and improves a variety of key advertiser KPIs, including brand awareness & recall, attention, consideration, shoppability, site visits, and more.

For every opportunity that exists to serve a creative to a user, there are many possible creative format experiences, and the elements that comprise them. The final form of the advertising creative should not be the same in every scenario; it should be a product of the multitude of factors that converge at the moment the user and the creative meet.



IN THIS PAPER YOU'LL LEARN:



①

Why the “last mile” of optimization is such a multifaceted problem that AI is well-positioned to help solve

②

Five critical components needed to prove that AI learning can help deliver the best format experience

③

Actionable next steps to take these learnings into your organization and enhance your campaigns

WHY THE "LAST MILE" OF OPTIMIZATION IS SUCH A MULTIFACETED PROBLEM

That machine learning is well-positioned to help solve

Every ad opportunity represents a unique intersection of the advertiser, the context, and the user. Each of these components is defined by a collection of attributes, each of which can have hundreds, thousands, or millions of values. Why so many values?

- Advertisers can be defined by their brands, products, and campaigns.
- The context can be defined by the publisher (site/app), content, individual ad slot.
- The user can be defined by their audience & behavioral characteristics, their device attributes, and their unique situation in time and space.

This raises an important question central to the topic: **how does one choose the optimal format for their creative, given every ad opportunity is defined by millions of permutations of these different intersecting factors?**

It starts to sound like the kind of problem that would be interesting for machine learning to solve.

Machine learning, a subset of AI that we will focus on in this whitepaper, is an exciting field that **allows us to make increasingly accurate multivariate predictions about what will happen using large volumes of historical data.** It can find patterns in large volumes of data, make rapid and accurate decisions, and is effective at overcoming ambiguity and sparsity. Machine learning can uncover unexpected and unspecified truth conditions (features) and can make good predictions under novel circumstances.

These unexpected and unspecified features are especially powerful when comparing ML to the human-driven optimization we often see in the ad tech industry.

Machine learning provides a flexible toolbox for many types of problems, and the problem of choosing the optimal creative format for each ad opportunity is no exception.

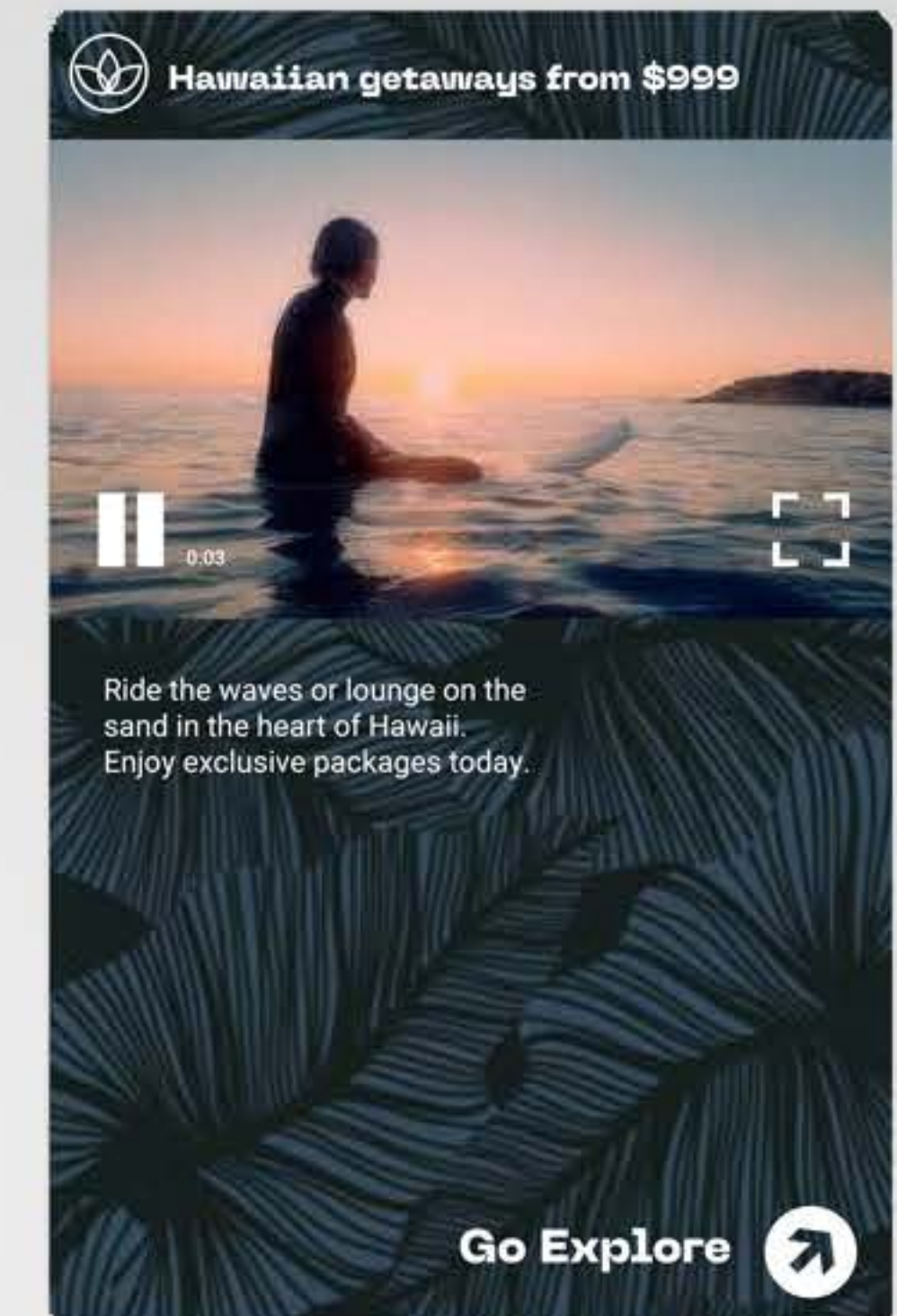
Creative

Often presented as is, without regard to context, content, methods of elevating performance.



Format

Presentation layer can add elements around creative to improve the experience and bolster performance, after the impression is won.



→ *"We need to stop interrupting what people are interested in and be what people are interested in."*

— Craig Davis

SETTING THE SCENE:



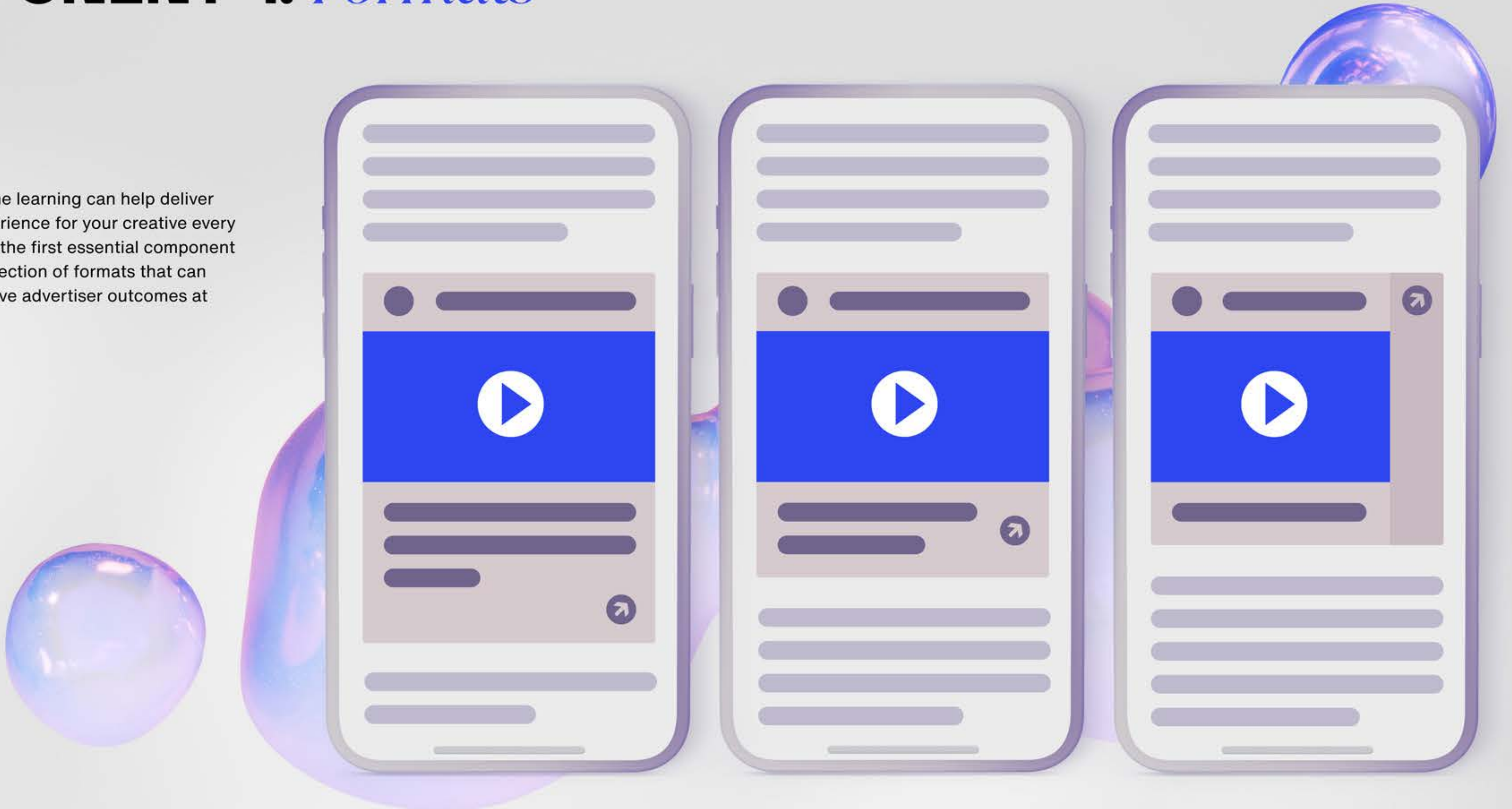
Five critical components needed to prove the hypothesis that machine learning can help deliver the *best format experience* for your creative every time your ad serves



COMPONENT 1: *Formats*



To prove that machine learning can help deliver the best format experience for your creative every time your ad serves, the first essential component is having a broad selection of formats that can independently improve advertiser outcomes at serve time.



COMPONENT 2: *Training Data*



To develop a model that can predict the best format experience, you must have a mechanism to process, transform, and store large volumes of data.

The training data must also:

- Be abundant, granular, and non-sparse interaction data
- Correlate with downstream KPI outcomes
- Be representative of the buying environment where you plan to deploy your models
- Be identity-loss resilient and identity-independent, to be scalable and future proof



COMPONENT 3: *Modeling*



To model successfully, you must start with a clear use case with a well understood and defined problem.

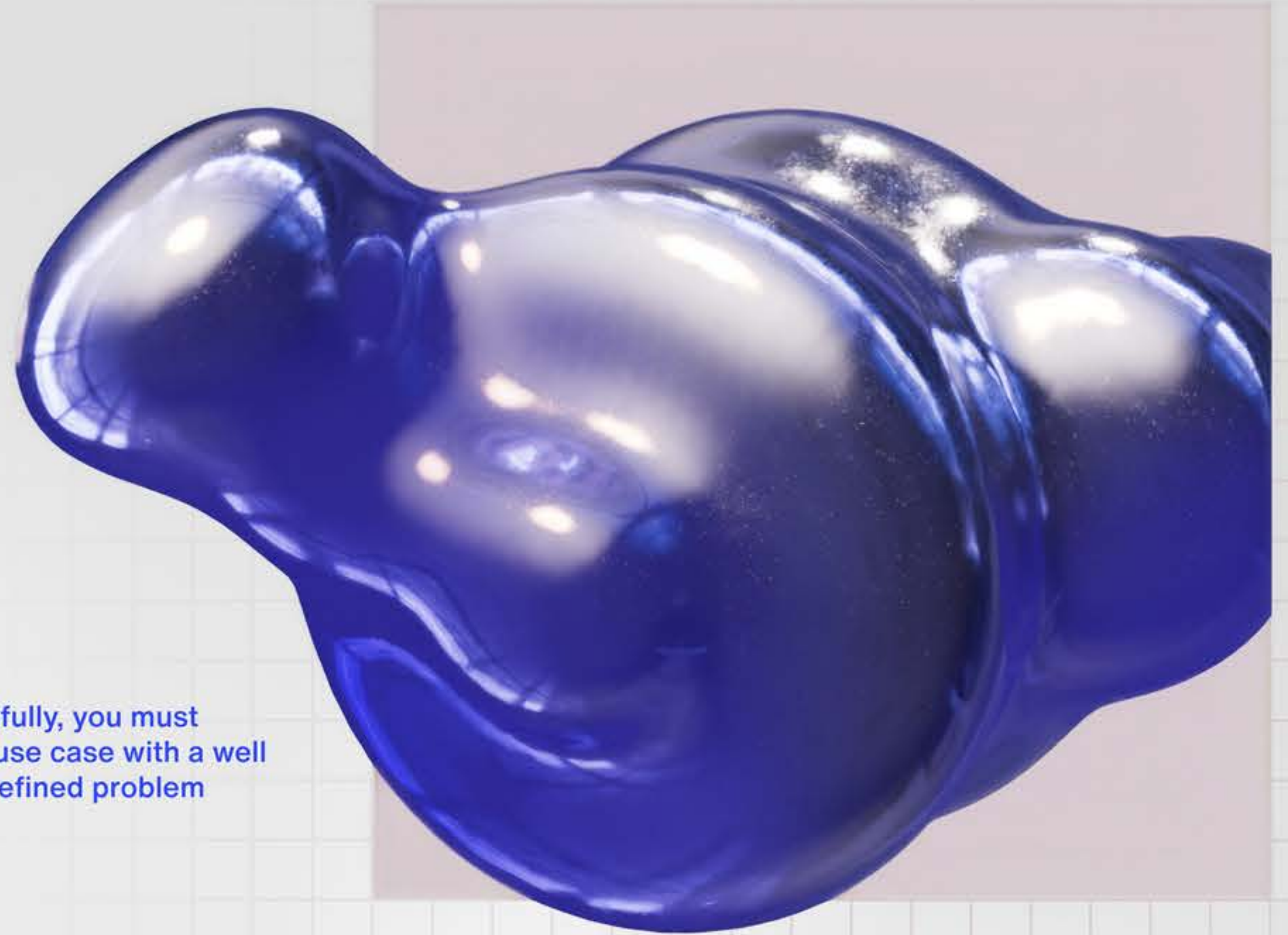
In our case, determining the best creative format to serve in real time. To build a reliable, consistent, and explainable process for model selection, you must have a process to:

- Train, evaluate, tune, test, and retire models
- Uncover which intersections of features are most predictive and important
- Adjust models based on individual performance

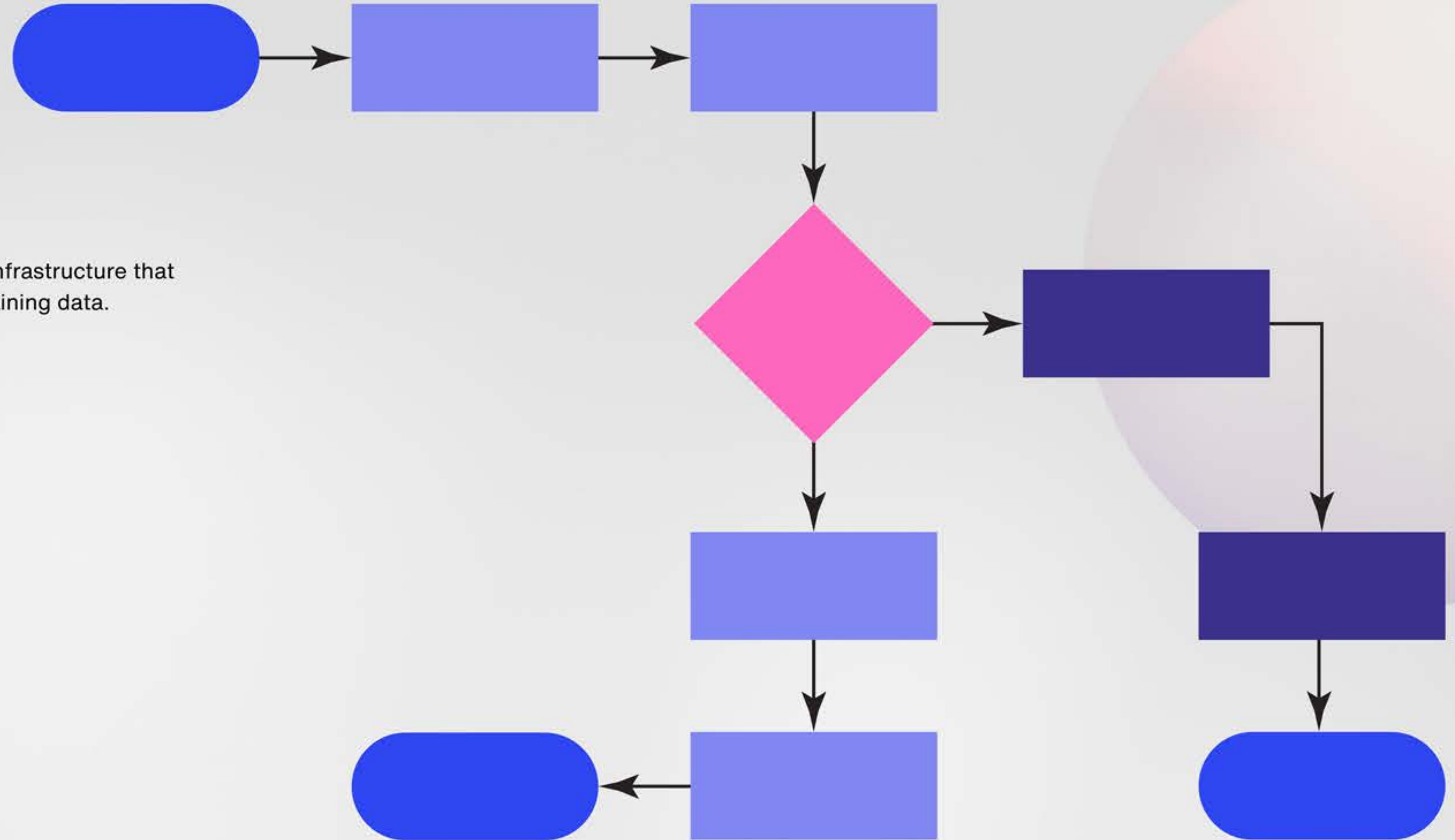
Some other requirements are:

- Governance
- Blending specialized and generalized models
- Robust foundation for feature selection
- Rapid learning, and nimble model updates

→ To model successfully, you must start with a clear use case with a well understood and defined problem



COMPONENT 4: *Machine Learning Operations*



To ensure your models are up to date, you need a robust infrastructure that can automate pipelines and collect, prepare, and score training data.

Here are some necessary features to consider:

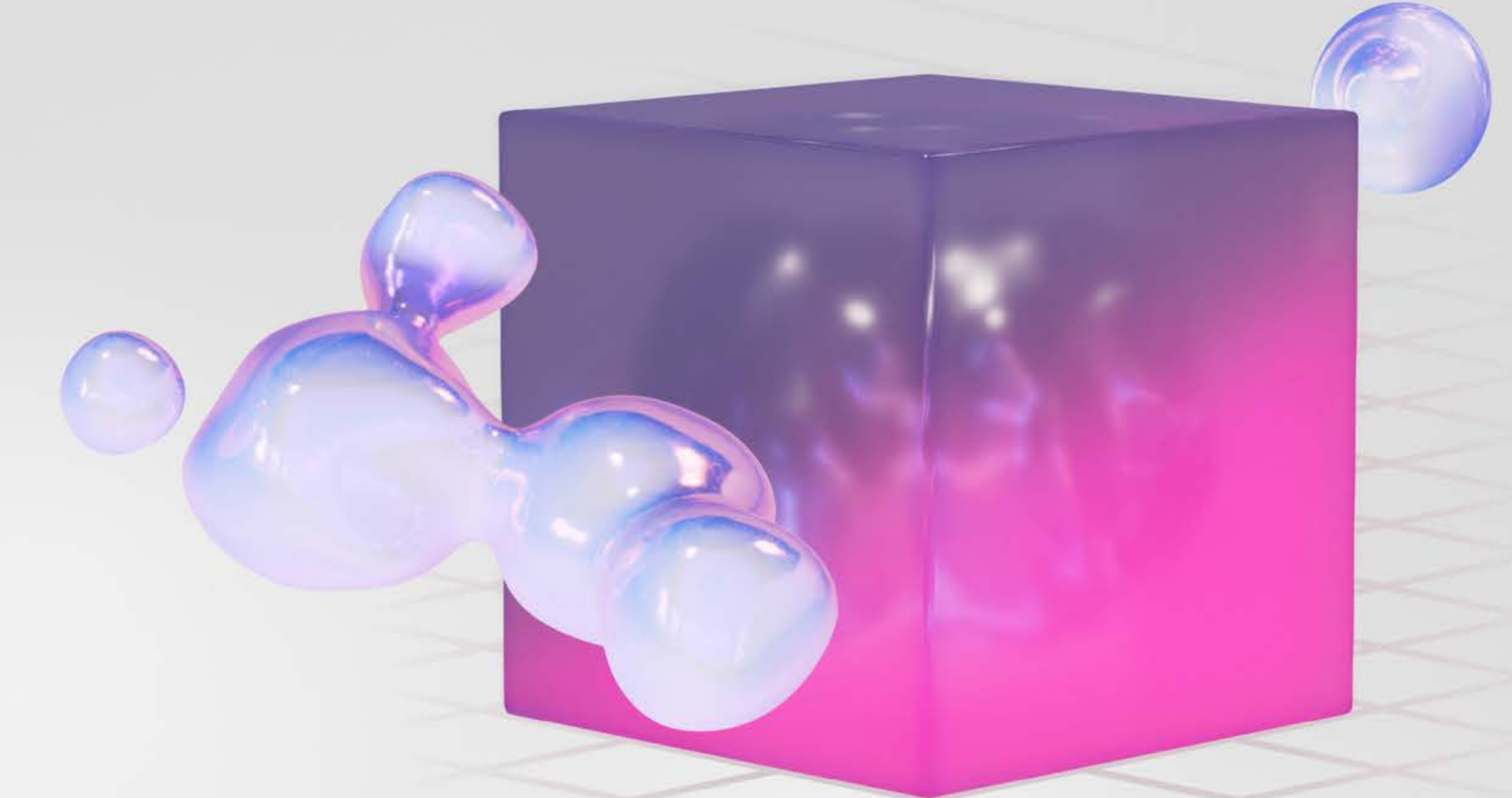
- Train, validate, and backtest models
- Surface new valuable feature combinations
- Assemble customized models for new campaigns
- Refresh models at least daily
- Update models based on recent performance
- Track versions and monitor models
- Robust experimentation framework (a/b/c/d test)

COMPONENT 5: *Activation*



Finally, to deploy predictions into a real-time decisioning system, some other essential features for activation are:

- A system for resolving collisions of feature predictions
- A fallback priority system
- Support for video, display, and native across all devices
- Flexibly trade-off scale vs. performance as needed by each advertiser to hit spectrum of KPI targets
- Ability to discard or block ad requests that are not:
 - Viewable
 - Fraud-free
 - Brand-safe
 - Aligned with advertiser's targeting strategy
 - Likely to yield valuable user interaction regardless of the format



→ *“Creativity may well be the last legal unfair competitive advantage we can take to run over the competition.”*

—Dave Trott

CONCLUSION



The right creative format can significantly impact the success of advertising campaigns. By applying machine learning to the creative format challenge, you can optimize the creative format for each ad opportunity automatically, and improve user engagement with your brand by delivering the best creative experience at every unique moment in time, to each individual customer.

Whether you are looking to build your own ML capabilities or leverage an out-of-the-box solution like Yieldmo's, this whitepaper should give you a good grasp of the key components required and a clear template for how to approach the opportunity.

If you're looking to spin up something lighter weight but still capture a lot of value from format optimization, there are some great options out there:

- You can accomplish a lot just by leveraging your DSPs custom bidding models, where you can upload your own bid modifier models for different formats
- If you want to go further, most major cloud providers provide end-to-end machine learning platforms that automate many of these steps

Most importantly, recognize that all the technology, innovation and value discussed in this whitepaper is coming from Yieldmo. If you don't know who your exchange partners are, find out. If you don't know what value your exchanges are providing you, ask. If they can't prove their value, replace them out with an exchange that is building and innovating to help you succeed.

Finally, keep testing. When budgets get tight, make sure to fight for your testing budgets. No one knows what the next year will hold, but when the industry and economy changes, as it always does, you don't want to be stuck with solutions that have lost their edge.

➔ "How can you squander even one more day not taking advantage of the greatest shifts of our generation? How dare you settle for less when the world has made it so easy for you to be remarkable?"

– Seth Godin, [SethGodin.com](https://sethgodin.com)



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