



Whirlscape

Predictive mobile messaging and automated virtual assistant.

What They Do

Whirlscape is working on the world's predictive artificial intelligence engine that analyzes what you're typing in real time and suggests actions you want to take without making you search for them. They amassed 750k paying users for their text predicting keyboard and are launching their second app that can predict how you feel from what you type, and suggest expressive messaging content - like emojis and GIFs for you to send.

Why It's a Big Deal

There's enough data in what we write for computers to suggest an action we want to take without making us search for it. Imagine if your phone knew what you needed just by analyzing your chats. You type to a friend: "I'll meet you in ten." and your phone automatically calls an UBER. This is will be a core component of how search, discovery, and advertising is done in the future.

The company that solves this problem will be part of billions of interactions. It's a matter of who has the best strategy to do it. Whirlscape is starting the seemingly trivial but frequently used emoji and GIFs to collect the critical mass of data they need to train their AI. Investing in Whirlscape is a bet that predictive software is the future and that Whirlscape has the best data mine to build it.

Bullets

- 750,000 users for their first product: Minuum.
- Now instant expression recommendations based on typing.
- Collecting data 6x faster than the competition.
- Investors include: Y Combinator and BDC Capital. to **90K** customers in **2016**.

Terms

- Invest in Wefund LLC that holds a SAFE in Whirlscape with these terms:
- **Round Structure: A Convertible** is an agreement that grants the holder the right to equity at a later date, typically when venture capitalists lead a 'Series A' financing.
- **Valuation Cap:** \$4,000,000
- **Discount:** 20%
- **Interest Rate:** 0%

Why We Like Whirlscape

Because predicting intent will be part of the future, and these guys have a shot to be the ones to get there first. In the future our devices will know what we want before we ask for it, and automatically suggest actions for us to take. Instead of searching for more information about a topic you're discussing with your friend, closing the messenger to order an Uber to hang out, or trying to locate a product online that you happen to be talking about, our phones will give us what we're looking for in real time without having to disconnect from the conversation. It will be like having a real time virtual assistant that can read your mind.

The predictive technology that will accomplish these feats relies on artificial intelligence, and AI's are only as good as the data they can learn from. That's why we like Whirlscape's strategy of starting with expressive content because it's used so much "give me numbers showing this." Since their Dango app sits on top of all the messaging services we already use, they can collect data 6x faster than any one messaging app could do on its own.

Their beta launch with 1,000 users shows their AI is working. Where 10 emoji used to make up 70% of emoji sent by any given person, their beta users are now sending 67% more diverse expressions. That means that they are suggesting the right content that users want to send, but was previously too much of a pain for them to find on their own. And they are getting better "improvement data".

The team has already proven their salt at bringing AI prediction engines to market. They successfully launched their predictive keyboard Minuum to 750,000 paying users. They know how to acquire users and design products people love.

Industry Research

One can easily imagine a world where billions of smartphone users adopt predictive technology - who doesn't want a phone that surfaces solutions automatically? Dango will capture the necessary data from a market that sends 41.5 million emoticons everyday and earn money with the latest advancement in word-of-mouth marketing: surfacing branded content (ads) for use in personal messages.

- There will be 6.1B smartphone users by 2020. If even .1% of them use Whirlscape to predict their needs that's 61M users.
- 41.5 million emoticons are sent around the world every day.
- Messaging app industry will generate \$29 Billion in revenue by 2017.

- Text expressions company, Line, earns \$200M+ every year selling emoticons. Dango will be the channel for these expressions.
- Giphy, the GIF generator for messaging, was just valued at \$80M.
- The global intelligent virtual assistant market is expected to grow at a CAGR of 31.7% from 2013 to 2020.
- 1 million guests each month use Hilton's mobile check-in app.
- Priceline make \$1.84B in Q1 2015. Expedia another \$1.37B.
- The U.S. market for legal cannabis grew 74 percent in 2014 to \$2.7 billion, up from \$1.5 billion in 2013.

Strengths vs. Risks

Even the greatest startups have uncertainties and weaknesses. Airbnb started by renting out their own living room, no insurance, no lawyers, no compliance. The future of young companies like Whirlscape is anything but certain. The best investors weigh both strengths and weaknesses before taking educated risks.

Strengths

- Predicting user intent - surfacing what we want automatically - is clearly the future.
- Team has proven they can solve a problem and launch a solution to 750,000 paying users.
- Meticulous, multi-year plan to solve this problem. Now charging forward with their next step: Dango.
- Dango is unique because it floats on top of any other app, mining data 6x faster than any competition.

Risks

- This is a hard problem. Whirlscape is on the right path, but the future is never definitive.
- Microsoft, Apple, large operating systems know this is coming. Have they already started to solve it?
- Even if they manage to collect enough data, does that mean they'll actually build the necessary artificial intelligence?
- Can they prove growth with Dango and continue to raise money not the back of this vision and a successful app.

Interview

Why is this important?

We've built our entire firm in the keyboard and predictive text space. Messaging is quickly trending away from text towards stickers, emojis, and animated GIFs. The amount of the content is growing exponentially, there used to be one smiley face, now there are infinite visuals to express oneself. We need a way to find the right piece of content instantly.

Have you analyzed this trend?

We have analyzed hundreds of millions of messages that showcase examples of how people actually use things like Emoji. There's a growing number of people willing to spend a lot of extra time to search for the right emoji, GIF or sticker. There is a measurable trend towards more expressive use of visuals, using the perfect visuals. A tool which helps users find these messaging visuals faster, more accurately, and from a much wider set of content is a huge value for those of us texting constantly.

There are millions of expressive content pieces out there. How often do users go outside their top ten?

How often do users explore different expressive content?

The general public resorts to their top ten emojis, stickers and GIFS 70% of the time. With Dango, users are already diversifying expression over 50% of the time and that number is rising as we improve the product. This results in more expressive and accurate content, better conversations, and increased visual use in general. One could say users are 67% more expressive with Dango.

This seems trivial at first. Where do you see this going long term?

Messaging has become a core medium for communication. Many of us use messaging as our primary source of conversation. Messaging has usurped phone conversation, and even face-to-face conversation is being taken over by services like Slack in the office. The core value of Dango is a recommendation engine, we think of ourselves as the kernel of a virtual assistant. There is a ton of value in the data from messaging conversations, value that's only growing as messaging overtakes every other communication medium.

The vision is to tap all the data present in these conversations. We'll be able to track all conversation and be the virtual assistant to help with anything you need as you talk about it. For instance, chatting about dinner tonight, we'll instantly surface a number of suggestions based on the conversation. We'll know our users because of what they're talking about, like

an assistant listening to your every conversation and then helping you with all that you need the moment you mention or allude to it. The ultimate goal for Dango is to become the recommendation engine to power the entirety of your mobile experience.

Elaborate on the long term focus of Dango and Whirlscape? Why is this the best approach?

Dango is merely the first step, a user acquisition channel and a fantastic way to build and test our predictive recommendation technology. Anyone who sends emojis, stickers, GIFs will use Dango; that's millions of people with messaging data we'll be able to access not to mention market to when we've actually built the predictive assistant software.

The ability to predict what people actually want. e.g. restaurant reservations, Uber rides, airplane tickets, etc. in real-time is the future of the mobile experience. Imagine, just as you think something, then type it on the screen, immediately the phone surfaces a suggestion or takes action via another app. For instance, you text a friend: "hey I'll be there in ten, catching a ride now." Dango will pick up on this cue and automatically call an Uber for you.

Mobile devices help us access what we want when we want it faster than ever before. With Dango, our devices will know our needs immediately and provide answers and/or solutions moments later.

It may seem silly that we're focused on emojis and other expressive content. But 1) there are a number of companies like Line Messenger that make hundreds of millions each year selling sticker packs and 2) it's a great way to access the data we need without catching the attention of operating systems who will most certainly try and solve the same problem.

Can you paint a picture of what the final product might look like?

The Uber case is representative of the quick action you might want to take on your phone. As soon as the user references anything related to going somewhere, we surface a button that says: "would you like to call an Uber?" They don't have to switch apps, they don't have to think about the next step, they just click "yes" and continue the conversation.

For expressive content, video is a cool example. Imagine discussing the weekend's football games and amazing catch. Our software will recognize the context, your previous tastes for sports, and surface the right game and exact highlight. The user can just click send to insert the clip into the conversation. All sorts of videos, music videos, etc can be inserted in real-time just like this, without the user searching or going to Safari to find the link.

What did you build before Dango and how has the shift gone?

Before Dango, we built the Minuum predictive keyboard which has been installed over 750,000 times. This has given us a huge early adopter user base for Dango.

Six months ago we shifted focus to Dango. We're combining the predictive technologies we built for Minuum with advanced deep learning techniques we've been developing for six months. The first iteration of Dango is an app that floats on your phone and can be used in any application. It just pops up when appropriate - anytime you're typing in any application. Currently we have 1,000 active users in beta and plan to announce the app loudly this coming holiday season.

How engaged are those 1,000 users?

Our initial users are sending 26 emojis per day. Also our retention rates have doubled since we first launched. Also approx. 30% of new users download the app from word-of-mouth which has gone up from 10% when we first launched.

Can you talk more about your first product Minuum?

Minuum is a keyboard that shrinks down to merely 10% of a user's screen and is more accurate than any other mobile keyboard. Minuum fits where conventional keyboards don't so it's perfect for any number of wearable devices.

It took a lot of work to shrink the keyboard so much. We only use 1/3 the buttons on Minuum vs. a normal keyboard. To preserve typing accuracy with so few buttons we had to build huge data prediction models and shrink those models down to run on mobile devices.

From a marketing perspective we've already gone through all the different phases go to market for a new company. We launched Minuum to huge success and 750,000 paying users. We capitalized on press, we have over 2 million views on Youtube for a typing app. Most importantly we learned that growth really stems from organic word-of-mouth referrals. So rather than rely solely on media we've doubled down on organic growth, refined our strategy, and plan to launch Dango in the same way.

What happened with Minuum? Why do you think it didn't really succeed on a large scale?

With Minuum, it became very clear that the problem of auto-correct and predictive text was not as strong of a problem as it used to be. SwiftKey emerged back in 2008 offering predictive text before stock keyboards had auto-correct, and then we were just too late to the game. We focused on integrating predictive text with extremely constrained user interfaces in the wearable market. But the problem just wasn't big enough.

Given how constrained the problem was, how small the potential user base was, it's pretty astounding how well we did with Minuum. Not only are the numbers great, but Minuum's capabilities are still incredible. No other keyboard works with such little screen real estate.

We don't regret anything. We learned a lot. A lot about the technology, go to market, product design, and running a company. We had 750,000 people pay \$4 for something we built. Now we can leverage that tech into our long term vision of real time virtual assistant and recommendation engine.

Who else is working on this?

Operating systems giants like Google, Apple and Microsoft will tackle this eventually, but in the short term we're facing competition from messaging apps. All messaging apps see the writing on the wall and are already building assistance tools within their software. The average smartphone user has 6 different messaging apps on their phone, and time is split evenly between SMS, Facebook messenger, Whatsapp, and other like Kik. So we're building a smart expressive content and text keyboard that sits on top of all these apps, that's platform agnostic so users only need familiarity with one keyboard. And because Dango can be used anytime you're typing, we're collecting data 6x faster than any of our competitors.

This one keyboard helps users express themselves properly in any messenger, and soon be the platform agnostic assistant that helps users wherever they are on their phones.

Why is your approach the right one?

There are a number of companies all approaching the problem differently. Most virtual assistant apps like Magic and M for messenger rely on users actually asking a question. They often use humans to help with the response and / or the request. They're effectively building a search engine that will answer questions and deliver things people request.

When we succeed with Dango we'll deliver what you want before you ask for it. You won't need to ask a question or request anything, we'll surface suggestions in real-time based on your conversations.

How important is this data advantage for improving the current app?

The app is platform agnostic, Dango is a keyboard that floats on top of any app you happen to be using. The average user has 6 messaging apps they cycle through on a daily basis, and we'll gather data from every one, every time a user is typing. This data will help us surface better emotional expressions and adapt to changing expression trends faster than the

competition. Our users will actually be cooler because they're so on top of the latest expressions.

How will you monetize all of this?

In the short term we plan to experiment with in app purchases, like new expression packs. More interesting than that is the spectrum of partnerships we can have. We'll partner with brands that want to surface their own expressions: Coke bottles, hardware emojis, cars, commercial GIFS, etc. As long as it's contextually relevant and we don't compromise the product we'll be able to insert advertising directly into text conversations. Brands will empower users to communicate more effectively about their products, which is the ultimate in brand engagement.

Can you tell us about the team?

We are 6 people, three co-founders and three employees. We're extremely technically sound and have proven much of our technical ability with the success of Minuum. We designed Minuum from the ground up, we built it ourselves, and marketed everything in house. We have more experience building and selling a keyboard than nearly any team on the planet. The last 2.5 years has been training for Dango, training for our real mission to automatically surface exactly what the user wants the instant that want it.

How often do people use emojis and other expressive content?

Twitter provides the most accurate data, where 1 in 5 tweets contain an emoji. We've also seen emoji use double on Minuum since release in early 2014.

What happens next? When will you launch Dango?

We'll publicly launch Dango this holiday season and expect to be featured on the App Store alongside a big push on Reddit. I think we can safely anticipate an additional 100,000 downloads right away. If we grow conservatively at 20% month over month we'll hit 1 million users within 12 months.

Where do you get your content? And what other expression forms will you expand into?

We've built an ongoing automatic web scraping program that finds all our content for us. There's a lot of information available to us through Twitter, through Instagram, through Reddit, through Tumblr, and other general Web forums. In addition to the data that we're collecting ourselves we've partnered with a number of content resources like Giphy and Emoji to provide more expressions from their libraries.

Beyond emojis, GIFs, and stickers we plan to expand into video and music. When we integrate the YouTube API our users will be able to text full video clips in any one of their favorite messaging apps. Similarly with the Spotify API users will be able to quickly text songs right to their friends, no link copying, no searching, we'll provide a keyboard of their top songs and suggested alternatives.

Then to continue our march towards a recommendation engine we'll soon integrate information sites and other apps like Uber. Users will be able to quickly text their friends a list of the top pizza places or the closest coffee shops. Then it's just one step further to automating every single desire our users have.

Who else is invested in your success? Why will they be helpful?

A number of partners have come on as advisors and then investors in this round. They're well connected in the entertainment industry and ensure us they can open a lot of partnership doors in the music industry.

These first partnerships will serve 2 purposes. One will be getting the data on brand engagement and efficacy of inserting brands in everyday conversation. Secondly, our first partners won't be about cash but rather cross-promotion. For instance we'll promote music artists for free in exchange for a mention on Twitter, Facebook, to their millions of followers.