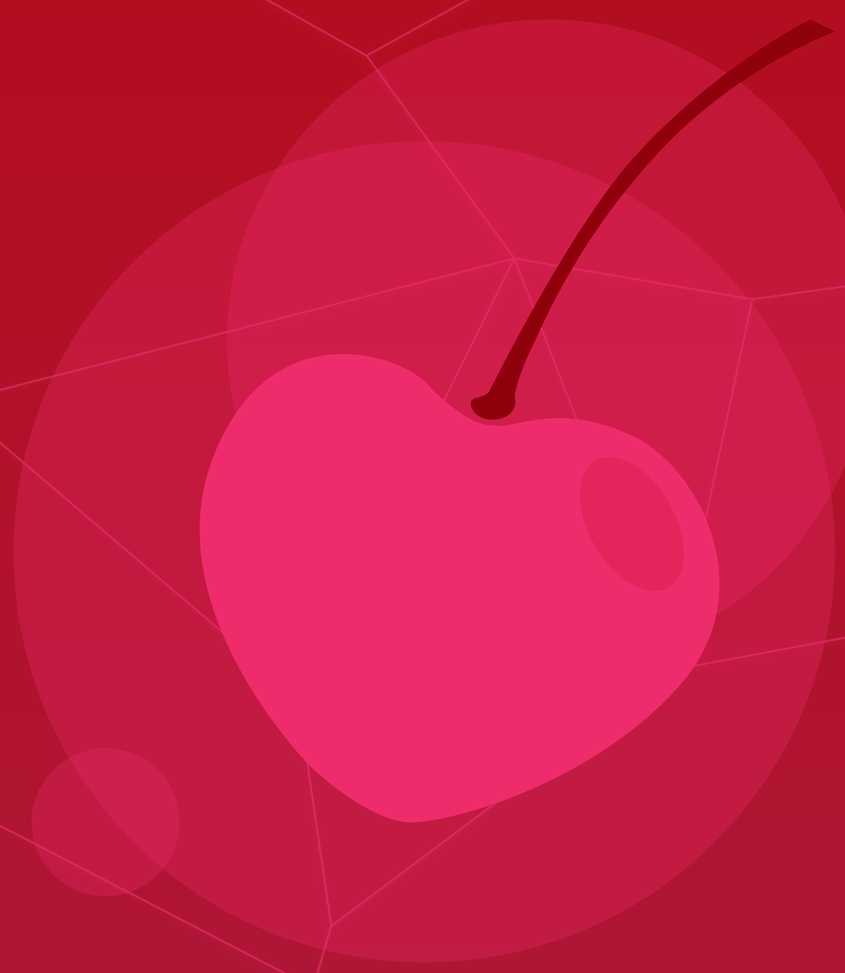


Crimzon

White Paper

A word from the founders:

Imagine just setting your preferences, then going out to party, have a good time, and let your phone do the matching for you. Imagine a world where you are rewarded for having genuine social interactions. Now, just trying to imagine this... You put on some VR headsets and there she/he is, your match in Paris while you sit in Los Angeles or elsewhere around the world. It's time to bring some innovation into the boring dating app market!

We cannot continue to pretend that the digital dating market today presents any real solution to users looking for genuine social experiences. For over 6 years now, every dating app replicates the other, and perpetuates the existing issues instead of solving them.

Fake users, inactive accounts, digital and physical barriers, aggressive behavior, and much more flood our dating apps today.

Several studies and first-hand accounts have definitively revealed that the dating apps today are more of a business scheme operating on an addictive model that keeps users interacting with their screens. A recent study investigated the interaction between users and dating apps and likened the activity to users gambling on slot machines. Even though the "swiping" paradigm was revolutionary in digital dating because it made the decision-making step a lot faster, its downsides are insidious and detrimental to our social health.

The swiping mechanism restricted decisions to an average of 1-2 seconds, too short for any real contemplation of value.

How have we accepted to reduce social interactions into mere digital swiping? The psychology is simple: we wanted the path of least resistance - we want more results for less effort. But at one point we must ask, what has this done for our society? We are seeing more often that the average person has more relationships, but with reportedly less satisfaction; relationships are becoming shallow.

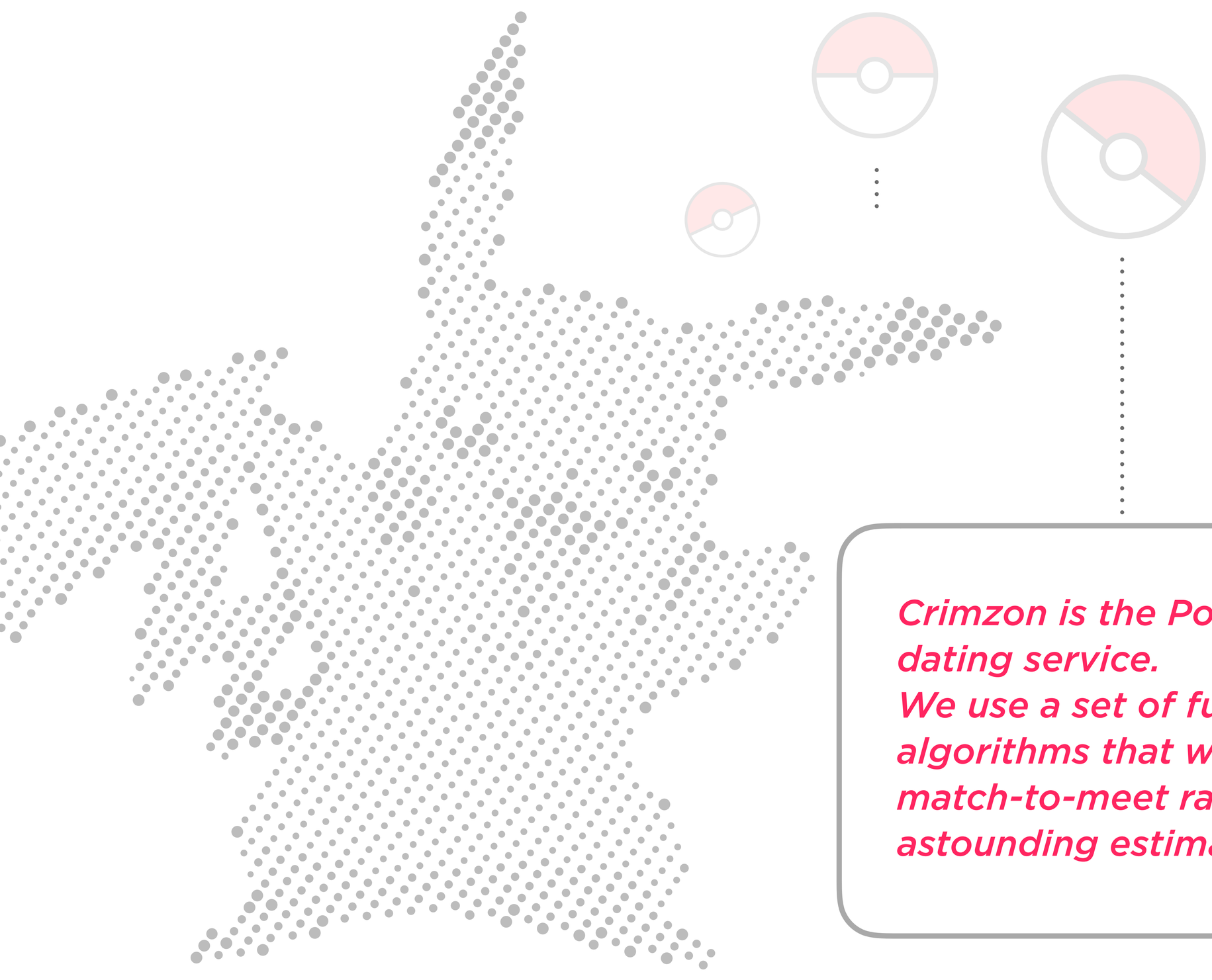
We need products and services that reinforce positive social behavior.

The millennial age is one of unprecedented demand for innovation. Yet, the dating market has been in status quo set by the big players since 2012. Crimzon is here to challenge them.

The amount of times a user meets one of their matches is less than 1%, and that is unacceptable.

We are neuroscientists and entrepreneurs with a strong background in behavioral psychology, and we understand exactly what this generation needs.

Just like Uber and Airbnb understood what millennials wanted, we do too. Using their principles, and more, Crimzon is integrating elements that will really impact how users interact with their phones to meet others.



Crimzon is the Pokemon Go of the dating service.
We use a set of functionalities and algorithms that will increase the match-to-meet ratio by an astounding estimated 700%

Overview:

ABOUT CRIMZON

Unlike most ICOs, Crimzon is an established company operated by JA.Hotspot LLC, registered in Los Angeles, California since 2016.

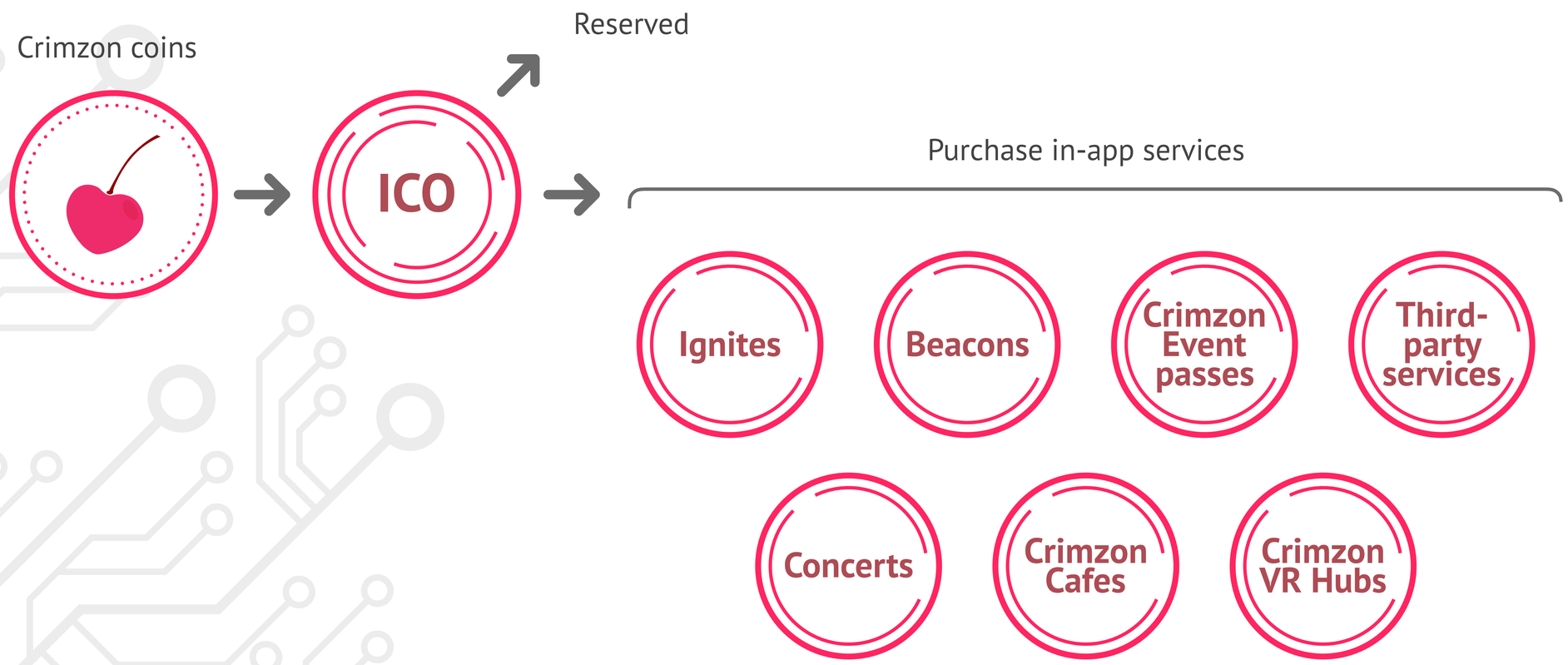
Crimzon has a functional prototype ready to be distributed to our beta testers on the iOS platform.

And...we've filed a patent for our technology, and are filing many more.

Crimzon is a real-time dating app that provides users with visual guidance and matches them based on coincidence detection technology: users must overlap in time and space. Crimzon also uses a blockchain-based model that rewards users with tokens for going out and having social interactions.

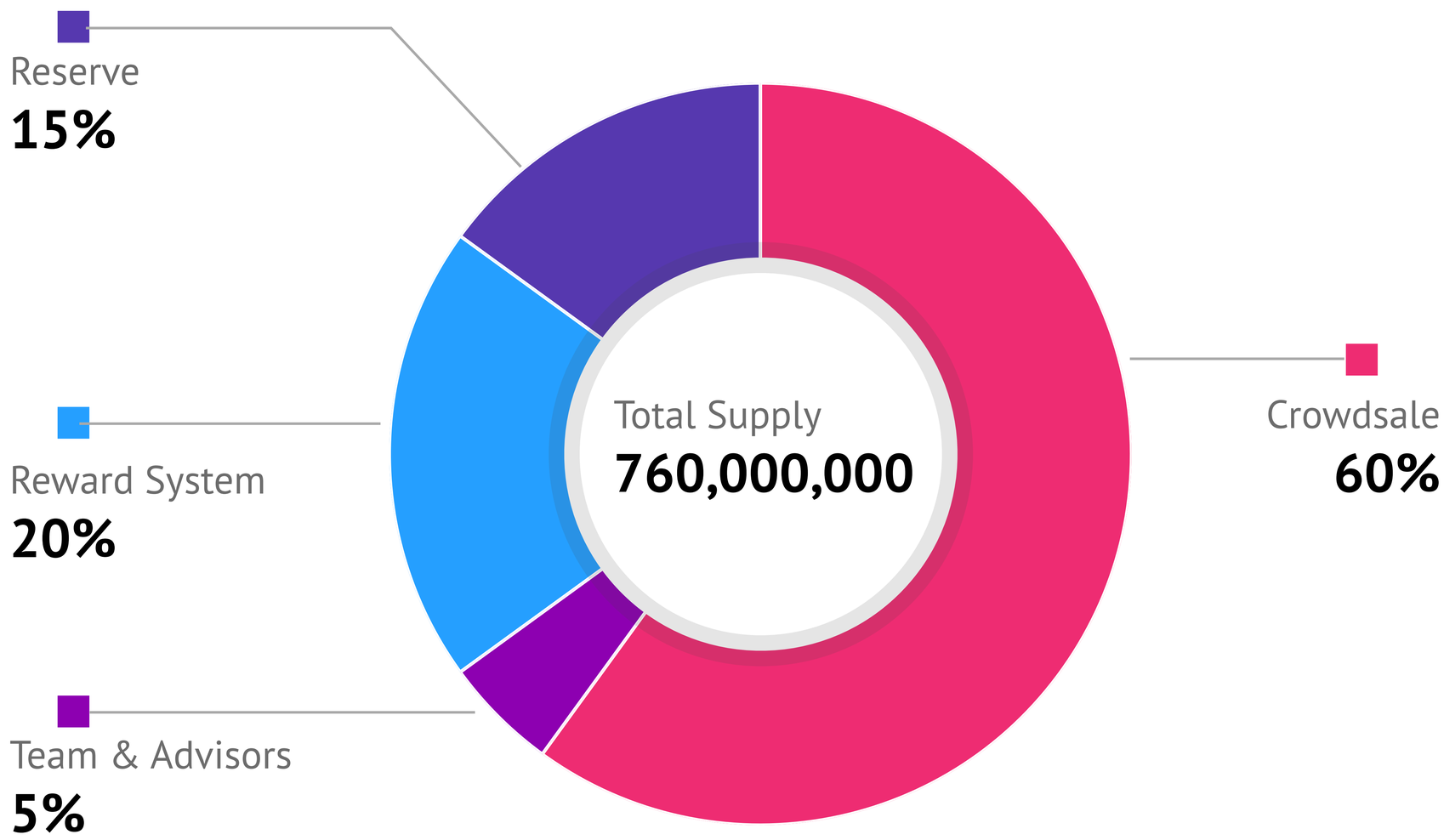
Several studies and first-hand accounts have definitively revealed that the dating apps today are more of a business scheme operating on an addictive model that keeps users interacting with their screens. A recent study investigated the interaction between users and dating apps and likened the activity to users gambling on slot machines. Even though the "swiping" paradigm was revolutionary in digital dating because it made the decision-making step a lot faster, its downsides are insidious and detrimental to our social health.

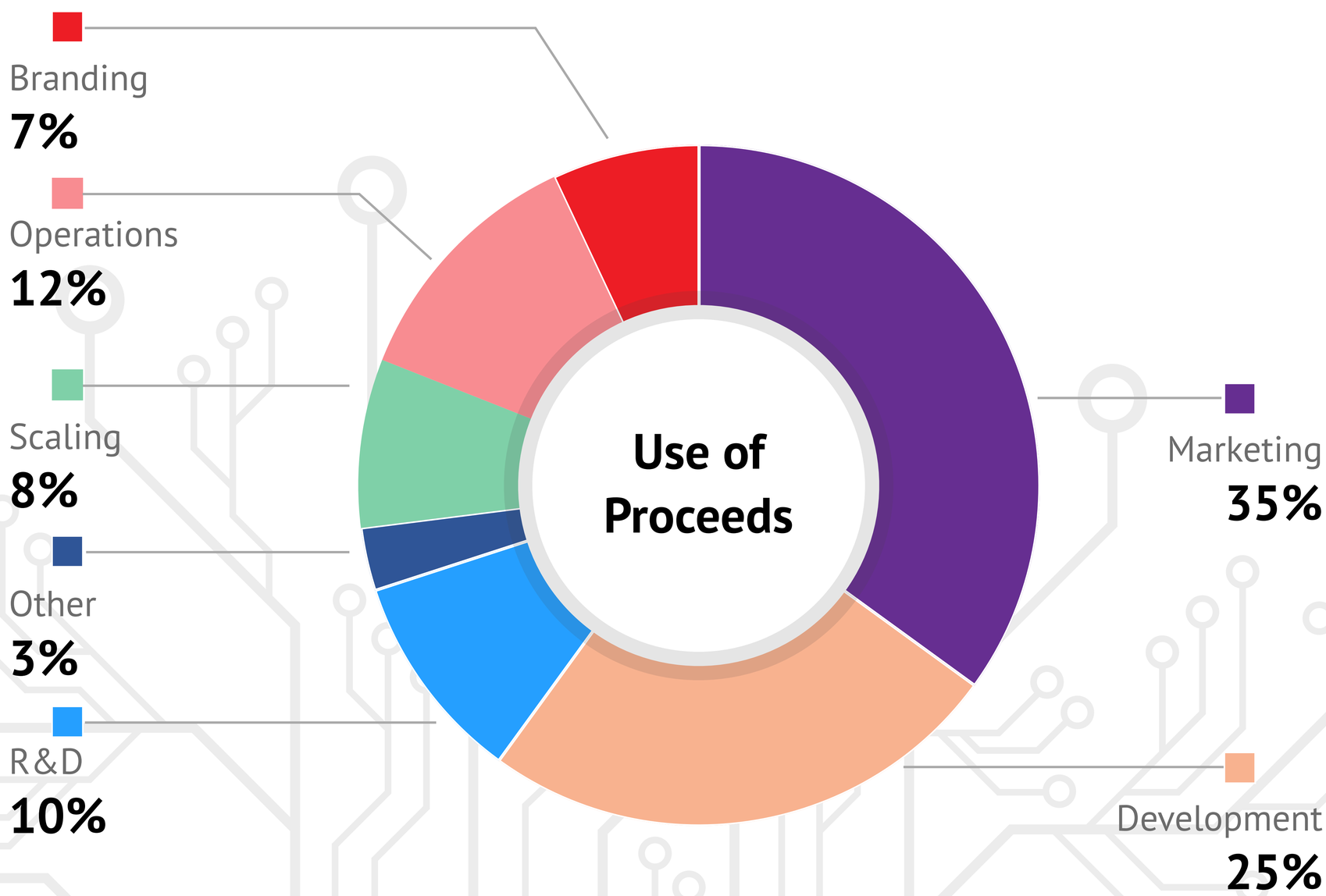
We are hosting a crowdsale to raise funds for the development of the android counterpart, and implementation of a new blockchain based functionality.



Overview:

TOKEN DISTRIBUTION





Our Vision:

Crimzon wants to recreate the dating platform to reward genuine social interactions using Crimzon Coins and eliminate fake users, inactive users, digital harassment and ineffective matching algorithms.

We want to create a world where technology brings us closer physically, not digitally.

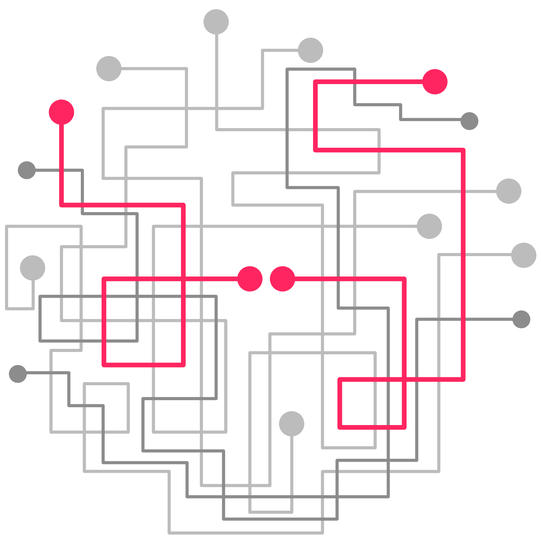
WHY CRIMZON

Crimzon only displays users on other users' feeds when they are:

1. stable and are in the
2. same vicinity at the
3. same time, with
4. matching preferences.

Crimzon also uses a Heat Map, which is a feature that visually represents the average user activity at different locations to let Crimzon users know where to go to find other users for matching and meeting.

Crimzon's algorithm requires coincidence points to match users, and that eliminates fake and inactive users by design!



THE PROBLEM

Dating apps today are flooded with fake user profiles and inactive users who uninstalled the app. When you do match, users are too distant from one another to actually meet, and the digital interface fosters an environment that is aggressive and yields to harassment.

Existing dating apps have no way of knowing if their users are fake, or inactive, and cannot prevent harassment or aggressive digital behavior. Dating apps today also have a match-to-meet ratio of less than 1, which is the percentage of time when a user meets a user they matched with.

Our Vision:

1 THE DIGITAL INTERACTION

Social interactions through digital screens create an unusual dynamic between people. ***Research shows that human interactions are comprised of sophisticated cognitive evaluations of both verbal and non-verbal cues.*** In fact, our minds are wired to infer information about what other minds are thinking; we use people's gestures, facial expressions, and other behavioral cues to infer what that person is thinking, feeling, or expecting. In a virtual social interaction, conversations are devoid of these emotional cues and masked behind screens. This creates dissociation between the users and yields to aggressive digital behavior that explains the following statistics:

35.5% | **of females are harassed through the messaging interface**

34% | **of users are using apps for entertainment, not to really meet anyone**

2 INACTIVE USERS

this may be a shocker – probably not. Users are frequently recycled through dating apps today even when they have the app uninstalled. ***Unless a user deletes their account, which is a subtle distinction, their profile will populate the feed.***

3 FAKE USERS

Mark Cuban offered Coffee Meets Bagel $30 million dollars on Shark Tank for their dating service idea, because it was allegedly able to eliminate fake users. Except, that isn't entirely true. No dating app today has found the solution for this, except Crimzon.

4 PHYSICAL BARRIERS

the ability to swipe on users who are over 100 miles away does the service no good. ***What value is there in matching someone in Madagascar?*** Okay, forget Madagascar... But what value is it to a user if they'd have to drive 30 miles to meet their match? Zero value.

Our Vision:

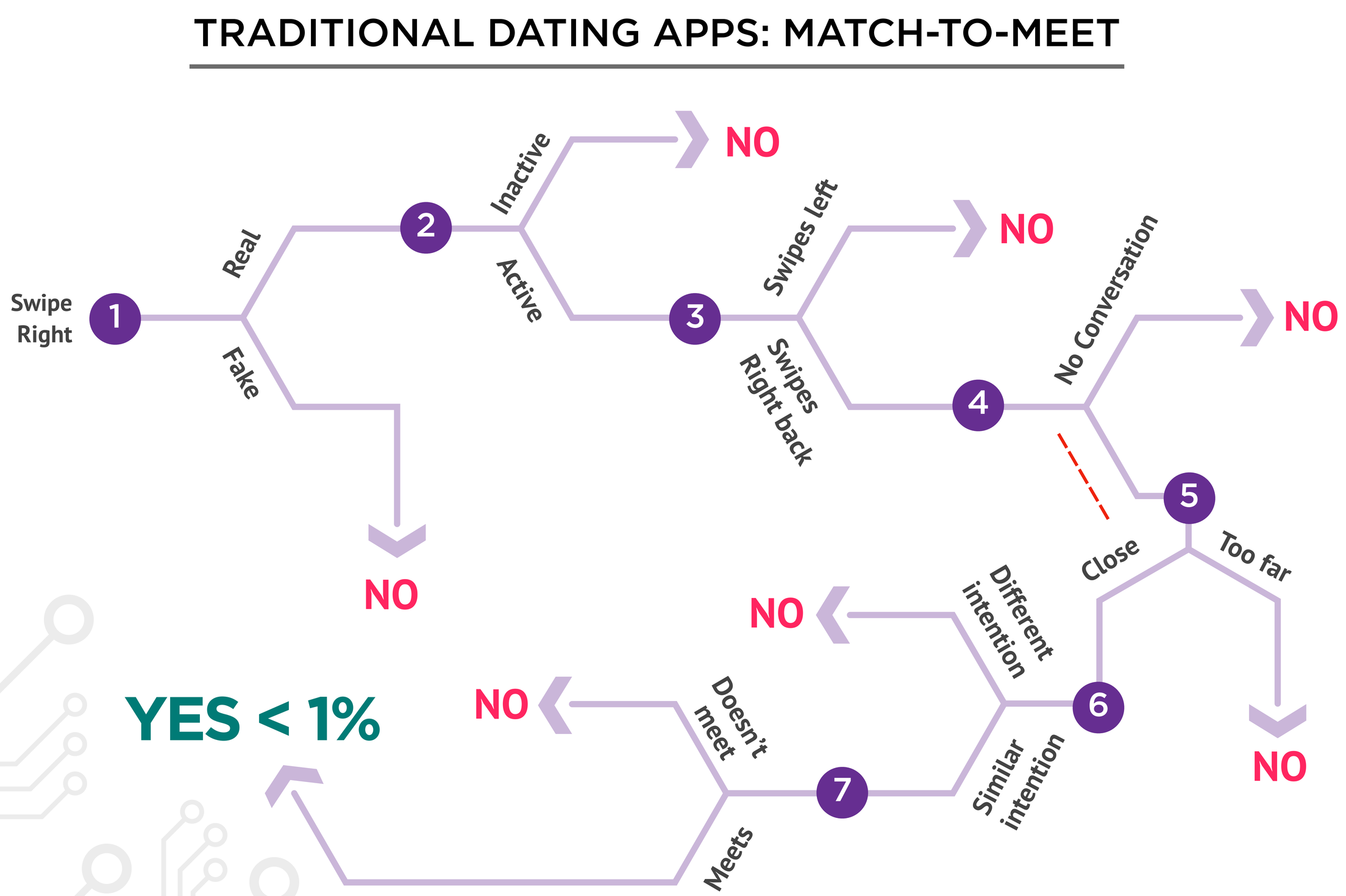
5 PRIVACY

Most dating apps today have poor privacy control. The fact that you as a user may not be aware that your profile is still circulating millions of phones with your location, and you have little control over that is absolutely ridiculous.

6 MATCH-TO-MEET RATIO

Did you know that if you matched 100 users on today's dating apps, per statistics you would meet 0.6 of a person? That's right... ***You have to match over 100 users on average to meet 1 full person!*** That's a match-to-meet ratio below 1%! ***According to Pew Research Center, 1/3 of users who've tried online dating have never actually met a match.***

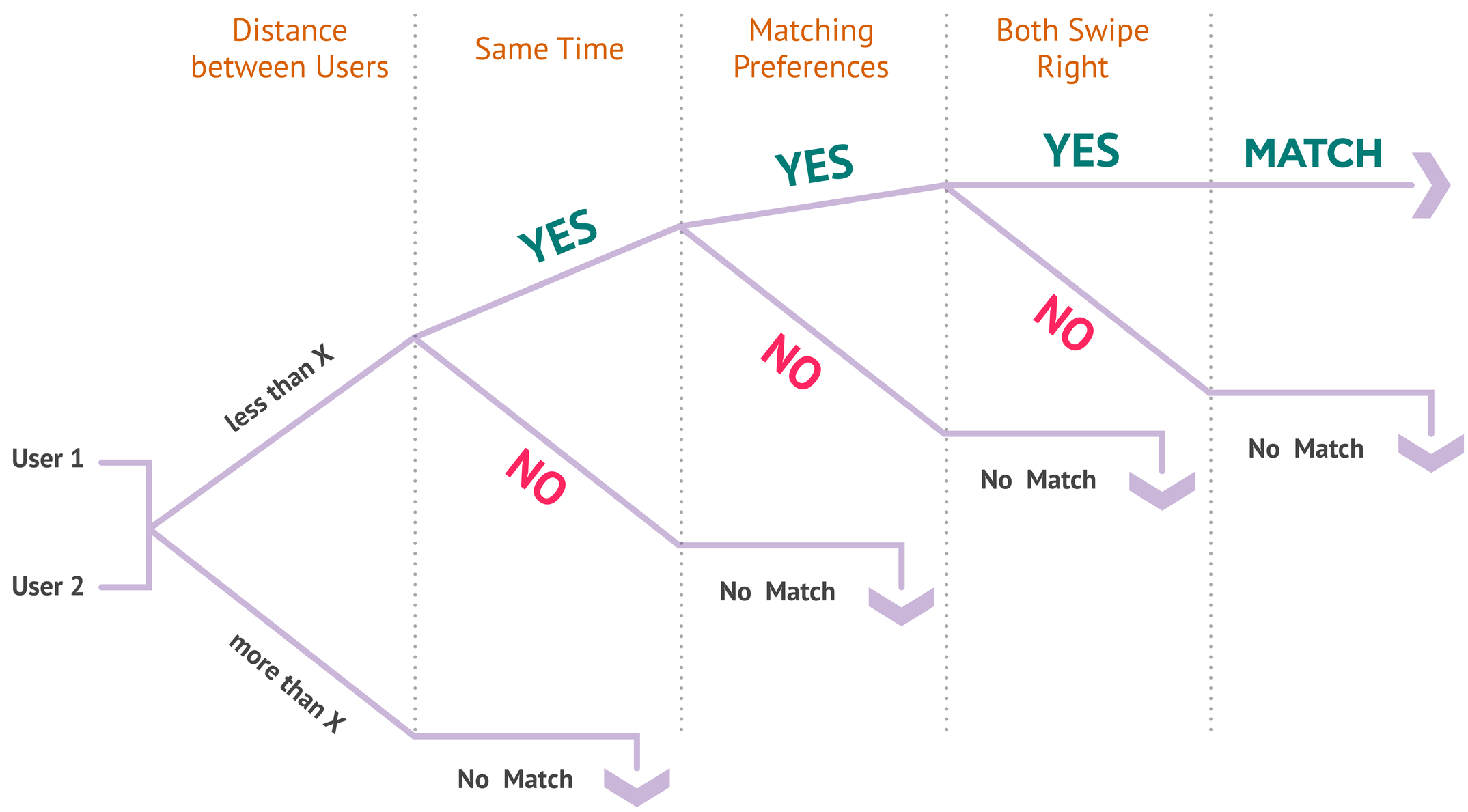
Combining all these issues – A logic chart of traditional dating apps versus Crimzon:



Our Vision:

First, you have to swipe someone and hope that the person is real (1). Second, if the person is real, you have to hope that the person is active – not inactive (2). Third, you have to hope that the person likes you back (3). Fourth, you have to hope that the person will engage in conversation (4). Fifth, you have to hope that the person is not too far away (5). Sixth, you have to hope that the person is looking for the same thing you are looking for (6). Seventh, you have to hope that this person ends up meeting with you (7)... ***No wonder it's less than 1%.***

CRIMZON: LOGIC FLOW



Crimzon's model eliminates ***1) Fake users 2) Inactive users 3) Physical distance***

If two match on Crimzon it's because

they're interested, real, active and close to one another

The Solution

Crimzon is developing a blockchain-based reward model to promote social interactions

REWARD MODEL

1) Going into HotZones (areas with many users) → Users who enter HotZones are rewarded with Crimzon Coins to their Crimzon app wallet based on a probabilistic algorithm

2) Users who meet their matches → we can determine if users meet with their matches, and those who do will be rewarded with Crimzon Coins based on a probabilistic algorithm.

The Crimzon reward model is an interesting and exciting method to reinforce positive social behavior and produce virality. The more users we have, the more powerful the reward model becomes, and the more demand there will be on our tokens – this demand will increase both the price of the token, and the desire to win it.

We've created safeguard measures to ensure that users cannot abuse the reward system. Using a ***diminishing returns schedule*** that operates on two temporal cycles to reduce reward probability overtime, and a ***refractory period checkpoint*** working in parallel, we are able to desensitize the reward algorithms.

The Solution

THE SOCIAL METER

The Social Meter is a measurement that provides a visual measurement of how active the user is relative to other users. The Social Meter is based on:

1. Matching rate
2. Meeting rate
3. HotZone activity
4. Time in coincidence with other users

The Social Meter is a way for us to better understand the factors that increase sociability and helps us iterate through newer more effective versions of Crimzon. This feature also enables many interesting ideas for future functionalities!

TOKEN USAGE EXPLAINED

The Crimzon Coins are generated once, and will have a finite total supply of **760,000,000**. They will accrue in users in-app wallets, and have the following uses:

1. To purchase tickets to Crimzon events on the Heat Map
    a. Crimzon establishes PR communities in major cities around the globe (Los Angeles, San Francisco, Chicago, New York, Paris, London, Dubai, Hong Kong) that organizes party events available for RSVP via the Heat Map using Crimzon Coins.
2. To purchase in app premiums
    a. Beacons
    b. Ignites
3. Concerts
    a. Users are notified of concerts in their vicinity via the Heat Map
4. Third-party services
    a. Uber/Lyft
    b. Hotel Stays/Airbnb
5. For use in upcoming features:
    a. Crimzon Cafes
    b. Virtual Reality Hubs

**** We are looking to implement a system that allows users to use the Crimzon Coins as a means of purchasing third-party services from the Heat Map, and in stores when cryptocurrency transactions become widely accepted***

The Solution

B2C MODEL

Available Features:

1. **HEAT MAP:** The Heat Map is at the center of Crimzon's functionality. The Crimzon Heat Map is an interactive map using the Google Places and Google Maps API. ***It's main purpose is to provide real-time visual guidance for users to find matches, create and attend events, and explore the areas with the highest probabilities of matching.*** The Heat Map is unique to every user, and its visual representations depend on the user's preferences – changing preferences can change the Heat Map's visual representations.

2. **HOTSPOTS:** These are places on the Heat Map that can be clicked. HotSpots are social venues like clubs, bars, cafes, restaurants, hotels, malls, etc.... ***Hotspots are places you can create events on to invite your match to, and are also where HotZones appear.***

3. **HOTZONES:** HotZones are red bubbles that appear over HotSpots on the Heat Map. ***HotZones represent areas with the highest probability to match given the user's specific preferences.***

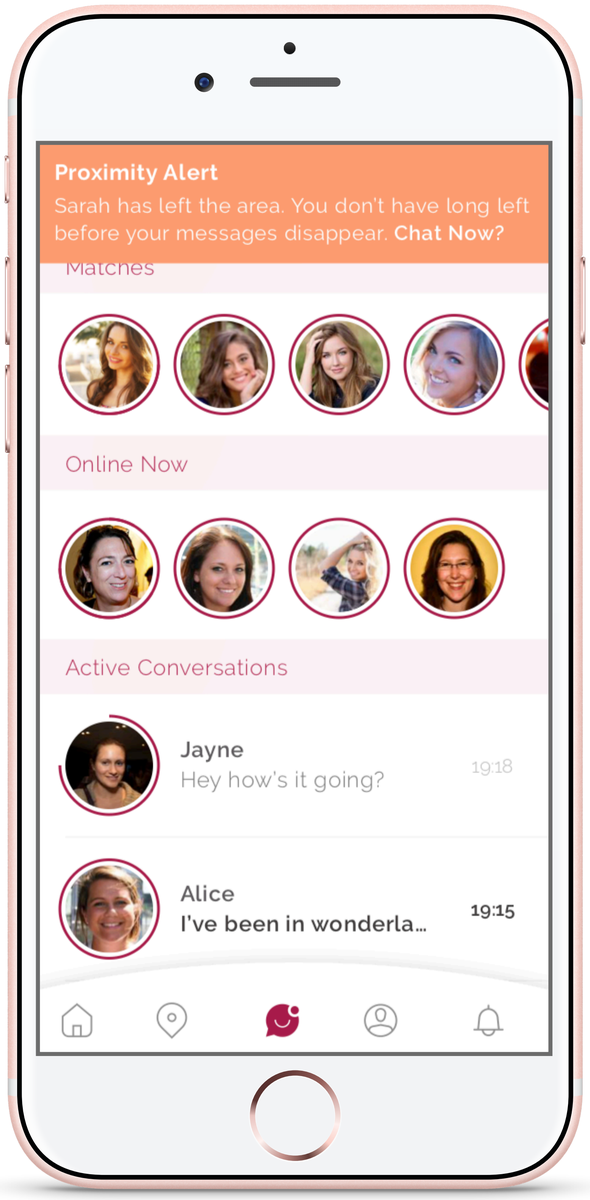
4. **PERSONAL EVENTS:** The personal events feature allows users to invite their matches to a specific location and at a specific time, but only for a day in advance. ***This maximizes the possibility that users who accept the invitation will attend it.*** Personal events are a great way to communicate with your matches when neither of you are in HotZones because they allow you to send a note with the invite.

5. **COINCIDENCE MESSAGING:** ***We don't like messaging.*** We've seen what messaging does to the match-to-meet ratio. When users are allowed to message infinitely and regardless of their distance, they will opt for an eternal chatting date until one gets bored and starts ghosting. Our messaging feature is different. ***This functionality appears when your match is close to you, or when one of you is in a HotZone!*** Once either condition is violated, you are alerted that the messaging interface will disappear and a ***5-minute timer begins – so quickly, say what's on your mind or meet up!***

6. **IGNITE:** The ignite is the best way to tell someone on your feed that you've liked them. It will let them know instantly that you like them, and ***will make your profile stick on their feed, even when they leave your vicinity.***

The Solution

7 **HEAT SCALE:** Finally, a feature ***that lets you say what's really on your mind.*** With the Heat Scale, you choose a number between 1 and 4. Each one has its own description of your mood, or what you're looking for. 1 → Friendly 2 → Flirty 3 → Dating 4 → Relationship. Anyone on your feed with the same number will have an indicator on his or her profile.



FEATURES COMING UP

1 **BEACONS** → This feature will be purchasable using Crimzon Coins, and allows users to temporarily expand the range in which they can match

2 **E-COMMERCE**

a. Integration of Transportation – Uber/Lyft
b. Integration of event registration

3 **CRIMZON DATE CAFES** → We are looking into creating Crimzon Cafes for the sole purpose of meeting people. Here, items and products (coffee, food) will be purchasable using Crimzon Coins

4 **VIRTUAL REALITY HUBS** → We are investigating a really fascinating idea with virtual reality that will allow users to actually see their dates in different countries. This feature will also be available for purchase using Crimzon Coins

The Solution

USER CASES

1. ***MARY MARRIED A FRIEND*** Mary sets her gender and age preference then adjusts her Heat Scale to "1" ***(Friendly)***. She opens the Heat Map to locate which places are HotZones. Mary chooses Club Cherry because it looked active with users and her phone vibrates as soon as she steps in. Mary's feed shows the people currently matching her preferences, and a small indicator on every profile that has the same Heat Scale number. She swipes right on Tod and he receives a push notification then swipes back - ***Mary and Tod have 12 children today.***

2. ***A WALK OF FAITH WITHOUT TINDER*** Max is struggling with work and his heavy college load this semester. He just does not seem to have the time for social interactions, but he is feeling lonely and demotivated. Tinder is just racking up useless matches, and nobody ever started a conversation with him on Bumble - sounds familiar doesn't it! Max downloads Crimzon and as he walks to class the next morning, he runs into Julie who also had Crimzon. Their phones alert them, and there they were... in each other's faces... awkwardly standing, yet genuinely smiling. ***Max and Julie are now "studying" for exams together every weekend.***

3. ***SICK OF MATCHING IN MADAGASCAR*** Monica is not looking for anything serious, but she's looking for something at least... and Tinder, Bumble, and every other dating app is flooded with fake and inactive accounts. Even when she matches, they're all in Madagascar, too far for Monica. So she downloads that Crimzon everyone is talking about, sets her preferences and chooses "Flirty" for tonight. Monica's Heat Map is glowing at uptown, and that's where she needs to go. Monica uses the Heat Map third-party services to order transportation because she knows she can't drive the way back. ***Let's say Monica and Crimzon are now in a long-term relationship.***

4. ***A LIFE OF PARTY*** A group of you are bored on a fine Saturday evening. A smart friend pulls out Crimzon and checks the push notification showing a Crimzon event hosted at a near venue. This Crimzon event is a luxurious social party where you can meet many people – off the phone. The friend RSVPs for the Crimzon event via the app using Crimzon Coins, and heads there for a fun night. ***What happened at Crimzon stayed at Crimzon.***

5. ***LIVING ON THE EDGE*** Hannah checks her phone after it vibrates and notices a push notification from Crimzon. The notification is teasing Hannah about a "personal invite" for tomorrow from one of her matches and appears as a bubbled question mark on top of a nice restaurant. The invite only specifies the time and address tomorrow but doesn't reveal a face or the name of the match inviting her yet, not until 6 hours before the invite to keep it a surprise. Hannah checks again the next day and accepts the invitation – ***She has 6 hours to prepare!***

The Solution

B2B MODEL

HYPER-LOCAL MARKETING: Using our core functionality, we are able to offer relevant coupons and discounts to users depending on which place they are in.

PROMOTIONS: We can choose which HotSpots (Starbucks Vs. Coffee Bean) are eligible to produce HotZones. This allows us to monetize on user traffic to HotZones.

E-COMMERCE: Using third party services like Uber/Lyft or Airbnb, we can redirect our users to booking these services through our Heat Map. Users can also purchase tickets to events through our Heat Map.

HOW IT WORKS

HYPER-LOCAL MARKETING: User enters Starbucks and receives a coupon discount on the feed interface.

PROMOTIONS: Club Cherry signs a subscription with Crimzon. Crimzon enables Club Cherry as an eligible HotSpot and lights up with a HotZone on user's Heat Map due to its user activity, promoting user traffic to the club

E-COMMERCE: User wants to make a trip to the nearest HotZone that happens to be at The Plaza. An option to order an Uber/Lyft appears in the interface when the HotZone is clicked. There is also a Hilton Hotel near The Plaza, the Hilton Hotel can be clicked (it would be a Hotspot on the Heat Map) and a reservation could be made.

A Closer Look – Our Technology

HEATMAP FORMULA SHEET

Distance Formulation

❖*Displacement approximation between two GPS points:*

$$\Phi = \sin^{-1}\sqrt{\sin(\Delta\lambda)^2 + \sin(\Delta\varphi)^2}$$

$$s = \Phi R \text{ or } s = \sin^{-1}\sqrt{\sin(\Delta\lambda)^2 + \sin(\Delta\varphi)^2}\ \sqrt{2(1 - \cos\Phi)}$$

Preffered

HotZone Evolution

❖*UserLocation-to-HotSpot transmutation criteria:*

For: $L_{(\lambda_0, \varphi_0)} \rightarrow \zeta_{(\lambda_0, \varphi_0)}$

Then: **1)** $s_{L0 \rightarrow L1} \leq \alpha\,[or\ \Phi_{L0 \rightarrow L1} \leq \omega]\ |\ after\ \tau\ |$

2) $t_{L0} \leq T$

❖ *GooglPlace-to-HotZone transmutation criteria:*

For: $G_{(\lambda_0, \varphi_0)} \rightarrow Z_{(\lambda_0, \varphi_0)}$

Then: **1)** $s_{\zeta \rightarrow G} \leq \alpha\,[or\ \Phi_{\zeta \rightarrow G} \leq \omega]\ |\ after\ \tau\ |$

2) $n_\zeta \leq \beta$

HeatMap Percolation

❖*HotZone competition for visual dominancy criteria:*

For: $Z_{hidden} \rightarrow Z_{visible}$

Then: **1)** $s_{Z0 \rightarrow Zi} \leq A$

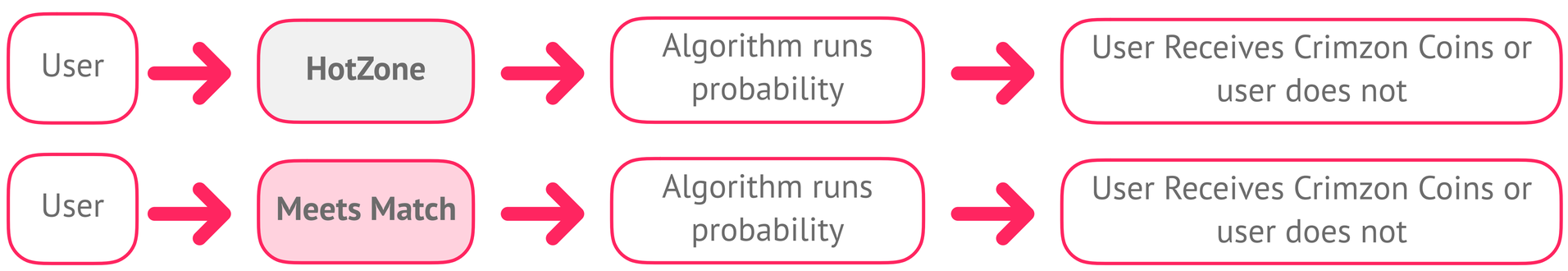
2) $\frac{n_{Z0}}{n_{Zi}} \leq \gamma \left| \ where\ \ \gamma = 1 - \frac{s_{Z0 \rightarrow Zi}}{A} \right|$

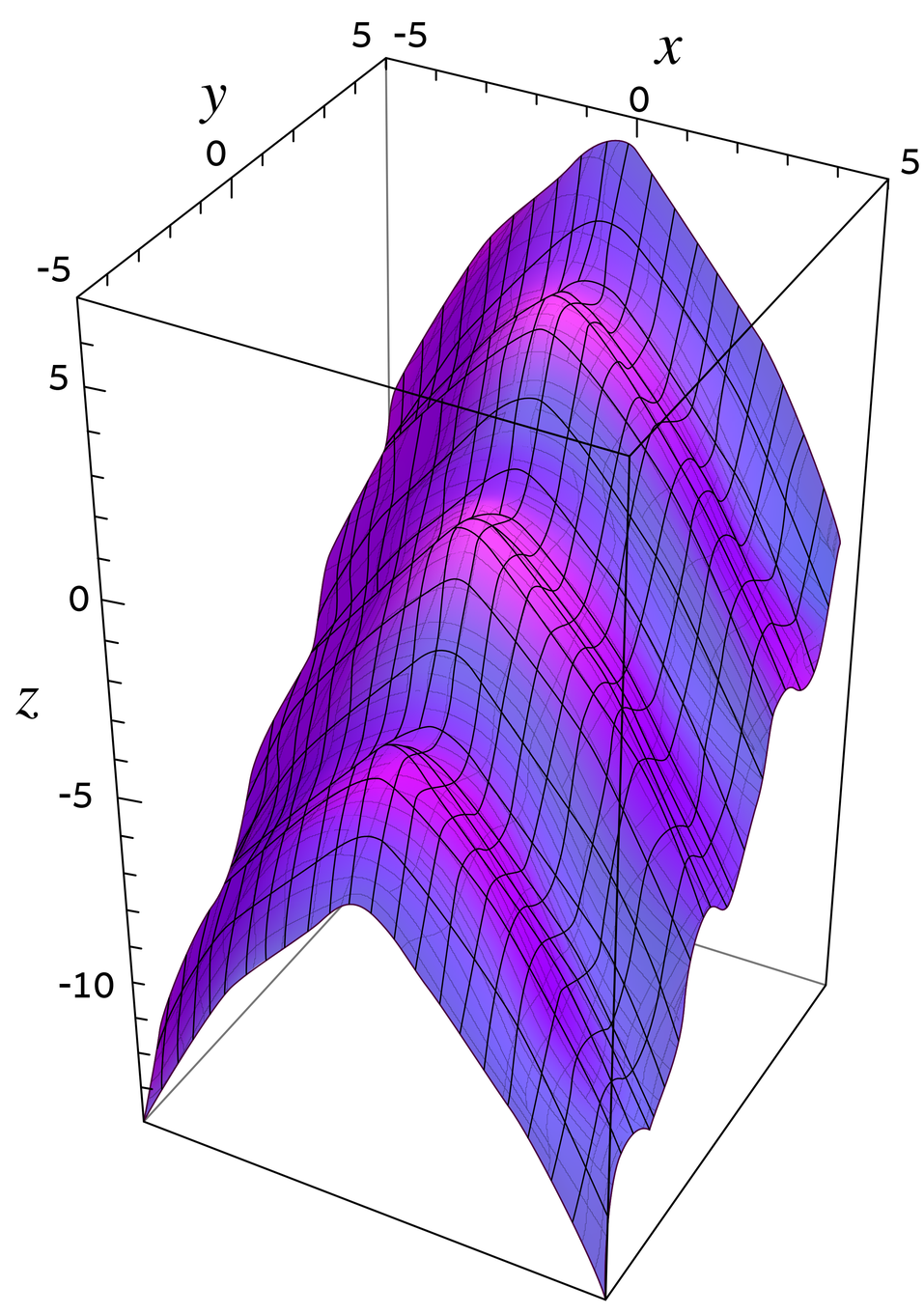
A Closer Look – Our Technology

Variable List

λ – Latitude
φ – Longitude
Φ – Angular Displacement
s – Metric Displacement
R – Earth's Radius
ζ – HotSpot Location
Z – HotZone Location
G – Google Place Location
L – User Location
α – Distance Threshold
ω – Angular Threshold
β – Count Threshold
n – Count
t – Recorded Time
τ – Time to Echo
T – Time Threshold
A – Meta-Distance Threshold
γ – Meta-Distance Ratio Threshold

BLOCKCHAIN-BASED REWARD MODEL





Z-axis – Probability (range is 0-1)

X-axis – Distance from stimulus (Range is -100 meters to 100 meters)

Y-axis – Time (range is 0-16 hours)