

ARROW – Bringing Communities Together!

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Business Model Canvas

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Designed for:

Arrow –
Connecting
People

Designed by:

Team Arrow

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Version:

1.0

Key Resources



Physical

- Web Servers
- Computers / Laptops
- Mobile / Devices
- Brand Merchandise

Intellectual

- Branding
- Database with Customer Information / Insights
- Proprietary Knowledge (Based on the research paper)

Human

- IT Team
- Marketing / Brand Promotion Team

Financial

- Inventory

Key Activities



- Setting up IoT devices at the gates of different locations
- Building a robust app to have a lively experience
- Maintaining a level of trust between the app and its users

Key Partners



- Artists
- Athletes
- Entrepreneurs
- Students
- Local Small Business Owners
- Focused/Interest Groups

Value Propositions



Pains

- Difficulty meeting people in new cities
- Hard to find people with similar interests
- Often in close proximity to people who might be good candidates for friendship but are unsure of each other's intentions so neither side takes the first step

Gains

- Meet and befriend people with the same interests
- More effectively find community in a new location
- Attract businesses to local attractions (bars, pubs, outdoor courts, concerts, theatres, etc)

Customer Relationships



- Listening to customer feedback
- Customer service through Virtual assistants or Email
- Self service through necessary tools
- Maintain an active online social media.
- Run contests to keep the engagement high

Channels



Customer Segments



Sports Academies

- find fresh talent
- keep a track of the number of players visiting every day and send promotions to interested audience

LGBTQ+ Community

- Arrow helps connect numerous communities with ease

Pubs and Bars

- Finding individuals with similar interests can help you initiate a conversation

Regional or Ethnic Communities

- Moving to a new city or country, and finding new people.

Cost Structure



- Development and Maintenance costs of the platform
- Development and Maintenance costs of the cloud infrastructure
- Physical IoT Devices
- Sales and Marketing

Revenue Streams



- Users would get the list of limited people who share the same interests. To get complete access of the user list who share the same interests, people should subscribe to a premium package
- Focused groups/clubs can promote their page and services via our app by a promotional program
- Brands and local businesses can promote their products via pop-ups and banners

Pivoted from the original scope of work

The initial idea of using Low-Powered Bluetooth and IoT devices to track the attendance in lectures had its own inherent flaws.

Common failures were - students bypassing the system by sending their smartphone with another student, device detection failure in long-range classrooms, if the mobile device gets switched off during the class the attendance is affected erroneously etc.

This resulted in inaccurate attendance reporting (as mentioned in the paper in under shortcomings/scope of improvements). Hence the technology could not be used in its current form unless some significant changes are made to the model infrastructure.

We are thus, proposing to use the same technology, to solve a problem of a completely different domain which deals with introducing people with niche interests and bringing communities together.

After having conversations with people who have just shifted to Dublin for education or employment, one of the most common things that they look out for is people from the same community or people who share the same interests. Our application fits in that space where the main focus is on bringing people together. The below sections justify our application in the current market scenario.

Type of Market Fit

- The stakeholders of the application we are proposing are people who are visiting to a completely new city and would want to collaborate and explore new people sharing the same set of interests, be it in sports, music or arts, professionals who want to collaborate in order to reach out to other individuals well established in their respective fields, or students who want to connect with other students visiting the same university
- Since we are directly targeting people from various walks of life, that makes our business model Direct to Consumer one. People willing to join our app can directly go to the App Store or Play Store and download the application and become a member of the "Arrow" Community
- Local businesses or communities can subscribe to the application via the website in which they would be asked a few basic questions on the products or services that they provide and accordingly they would be added to a segment best suited for them where they would be able to showcase and promote their products or services
- Based on the conversations we had with various tourists, migrants and graduating students, there is a dire need for an app which intimates the tourists or migrants of the key community groups that can help them settle in a new city or help various students connect with each other who share the same set of interests like competitive coding or gaming
- For people moving to a new city – for employment or studying, our app would be an ideal choice during the initial days to help them settle into a new city and environment. Based on the users' likings and inclinations, they would be redirected to various

community groups based on state-of-the-art machine learning close to their proximity by exploiting the Bluetooth capabilities in their respective smartphones

- Our app would also be beneficial for local businesses and support groups as there would be provisions for them to promote their respective product, brand and services via our application. For example, a prospective new user of the app is of a specific ethnic community and is looking for some specific product that is well known within that community. Our app can redirect the user to that particular brand/local business present in the closest proximity which sells or can arrange that product
- For students who have just started University and are struggling to find some reliable sources to clear their doubts about the course, this platform is extremely beneficial. There is a feeling of getting lost before joining a course in a University where one does not have any prior contacts. In such situations, interacting with the student community within the same University and the same course possibly gives them a sense of belonging and the feeling of being lost is avoided. This application provides a viable solution to this problem and enables a collaborative community for students moving to a new city/country for studying

Analysis of Competition

The key competitors in the market for our business are apps revolving around connecting people and bringing groups together. These include Facebook Events, LinkedIn, Meetup, Eventbrite, and Bumble BFF.

- Meetup is a platform for finding and building local communities. People can build communities online and then organise meetups after interacting online. Although this model can work, it suffers from concerns about the security of those in attendance and the true intentions of the users. One of the biggest complaints on the platform is the often severely imbalanced gender ratio across all types of events. The stark difference in our business model is that we will focus on bringing people together after they have already been in close proximity to each other, or attended the same event. This reduces concerns about authenticity considerably, and also allows for more organic and human interactions to take place; our business is aiding organic interaction by focusing on people who have already been in close proximity with one another
- Eventbrite is another competitor that does a great job of bringing people together for niche events, like a movie or play in the park. However, imagine you have attended a play in the park that you discovered. You might briefly meet a few people at the event but forget to grab their contact information. It is unlikely you'll be able to find them again. With our business model, we want these people who have attended a niche event to be able to connect with each other after the event, and potentially become friends through that interaction
- Dating apps like Bumble Bff that allow users to select “find friends” rather than dates do a good job of bringing people together. However, due to being on a platform that is mainly intended to bring people together romantically, the intention and authenticity

of users still persist as users meet online first, rather than in person. Furthermore, users tend to be able to select a wide variety of interests. In our business models, users are restricted in choosing specific niche interests, and also by the niche events they have attended. Through this, we are able to engage users with genuinely similar interests and activities

- Another rival that is important to consider is WeChat from China. WeChat holds a dominant position in the Chinese market and boasts more than one billion monthly active users. WeChat's "Shake Shake" feature connects users on the platform. Making new acquaintances in the same city is possible when you shake your phone, which displays nearby users. However, the focus of this function is mostly on efficiency. It focuses on instant messaging, how to facilitate faster user connections, and forging a transient connection. The matching individuals will not share your interests and pastimes owing to the unpredictability of "Shake Shake," which significantly lessens the effectiveness of creating friends. The biggest difference in our business model is that we gather people with the same niche interests, which greatly improves the accuracy and efficiency of making friends

Personas for the Customer Segment

- **Artists**: Artists agree upon not being able to find like-minded people in their vicinity. Hence, they will like the idea of meeting people with similar interests outside of their workplace
- **Athletes**: Enabling athletes or sports lovers to connect with the people they previously met on the field
- **Entrepreneurs**: Not all conferences can be worth the time of an individual, at times one-to-one communication is needed as well. An opportunity to meet prospective investors is a must for someone who aspires to have a startup
- **Students**: For a student, moving to a new city poses many challenges. One of them is networking with students from similar ethnic backgrounds. We provide a subtle solution to this problem ~ 'Arrow'
- **Local businesses or Brands**: The people with co-related interests will be shown the places helping to promote their brand or services.
- **Focused groups or Clubs**: Connecting people with niche interests, like, cooking, reading, anime, manga, etc. who are willing to form a community.

Model Economics

Expected customers through *GET-KEEP-GROW* Model

Get:

- Social media advertisements
- Advertisements through local establishments (pubs, theatres, etc)
- Email lists through university partners

Keep:

- Weekly Newsletter
- Online forum for Customer Feedback
- Promotions for long-term users

Grow:

- Referrals lead to premium account
- Require sign up for events with local establishments

Get

Social Media:

Social Media advertisements will allow us to reach a broad audience across all demographics. We will advertise in Facebook groups for the niche communities of our key partners, LinkedIn, Instagram, and good AdsWords. We will also advertise through local university clubs and societies as well, starting in Dublin and branching out.

Local Establishments:

We will partner with local businesses to host events and promotions for potential users. Users will be able to demo our product and get a taste of the experience we offer. This will give us the opportunity to both draw business to local establishments and also grow our user base.

Email Lists:

We will sponsor events and clubs and societies at local universities in order to grow our user base among university students. We will have these clubs send out emails about our product to their members. We believe students to be a key demographic in our advertisement goals.

Student Ambassadors:

We will partner with local students to represent the brand on their campus. This will include social gatherings with free “swag” and goodies from the company for event-goers.

Keep

Weekly Newsletter:

We will maintain a weekly newsletter listing featuring product updates and local events to maintain a strong connection with our user base.

Online Forum:

To collect user feedback we are going to provide a forum for users to submit their biggest pain points, feature improvement ideas, and bugs. We want to focus on a great user experience, and to do so, we want to best fit the needs of our users.

Promotions for Long-term Users:

For our long-term users who have been using the platform since the first few months of its launch, we would like to offer them upgrades to the premium version of the application.

Grow

Referrals for Long-term Users:

As we focus on growth in the early stages of our business, to incentivize referrals we will offer premium subscriptions for 3 months, for users that successfully refer two other users to the platform.

Sign Up at Local Events:

At our partnered events with local establishments, we will make it easy for event-goers to download the app through QR codes and promotional features.

Generating Demand

Demand generation is a significantly comprehensive process and takes place over a great span of time. It involves great collaboration, communication and coordination between sales and marketing departments and incorporates elements of inbound, direct and email marketing.

We are planning to go to market with a diverse strategy -

By Promotional campaigns :

which would expose our application to potential customers. This promotional campaign will be marketed over all social media platforms in order to increase the footprint of our application. After they try the app and find it relevant and beneficial, they can subscribe to our premium package. By using this strategy, the customers would have a sense of trust before committing to a premium package.

By Partnering with Brands and Events:

We are planning to partner with some local businesses to host some events that would be spread out over multiple domains. In these events, the users can meet up with people from the same community, sharing the same interests on a foreign land, like a 'Home away from Home'. This would help the users of the application as well as the local businesses and brands as they would have an opportunity to interact with prospective customers. This piece is not only restricted to brands but by partnering with some interest groups and focused clubs, we

can introduce many new people to the groups. This would help increase the footprint of the application and hence the word of mouth publicity would attract new users.

Display Marketing to Build Brand Awareness:

For this approach, we are planning to use the 'Managed Placements' strategy where we would have control to whom ads are shown to. This would give us better control by specifying where the ads appear, limiting their reach to individuals who are likely to respond positively to our ad and subscribe to the application. This would primarily be done to increase brand awareness and can be very effective in a wider demand generation.

Minimal Viable Product

Arrow is a lightweight bluetooth enabled application (Android/iOS) that stores preferences and interests and marks an individual's location at different hotspots through bluetooth IoT transmitters. This connection is made possible through the application which makes a handshake with the IoT transmitter when it is in range.

These marks are collected across different locations, and based on an individual's set of preferences groups them with like-minded folks that visit the same spots as them. It can also provide the ability to create custom groups, and chat with the group. A group can have a minimum of 2 people and a maximum of 150.

Bluetooth is almost always left enabled in mobile devices these days as it utilises low energy to power the hardware. A powerful feature of the application is automatic grouping and suggestions to people who visit these common hotspots and have similar interests, which gives an advantage to these individuals to connect and start conversations.

A technical breakdown of the deliverables are as follows:

1. Consumer facing Android and iOS application
 - a. Ability for users to sign up to the application with their details and preferences.
 - b. Ability for the users to view profiles of other users with whom they share common groups.
 - c. Automatic grouping of users and suggestion features as per user activity.
 - d. Ability for users to send messages in groups.
 - e. Ability for users to create events with those that they share common groups with.
 - f. Ability for users to leave a group / disable certain locations
2. Web-Services (Hybrid-Cloud / In-house Services and Databases)
 - a. Ability to store user activity from the transmitted data
 - b. Ability to group users based on the transmitted data and filters or preferences of users
 - c. User's Personal Information is stored in Databases as per GDPR regulations.

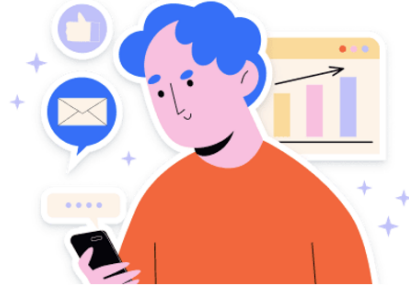
The customer Journey is mapped below

Mapping Customer Journey (Overall View)



1.

User moves to a new city, and yearns to find crowd with common interests around his most visited location



2.

Through Promotional Activities user finds out about Arrow, an application that helps him/her find new people with similar interests



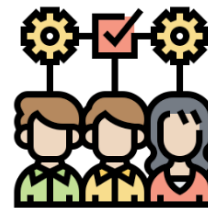
3.

User Signs-up for free on our platform and gives his basic details and his interests like – music, sports, academics, adventures etc.



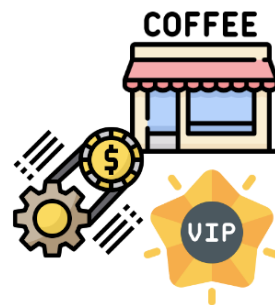
4.

Users get suggestions to create groups based on their location activity detected around hotspots around the city



5.

User connects with people of similar interests visiting similar places. This gives him an opportunity to connect – as entrepreneurs, artists, and a world of other opportunities



6.

Vendor shops are initially onboarded free of charge, but costs are attached for later onboardings as these hotspots can be monetized. Users are also given a chance to purchase premium membership.

Estimated Customer Acquisition Cost

The following table depicts an approximate cost required for acquiring new customers for a time period of one month.

Medium	Cost in €	New users(approx)
Email Marketing	12	50
Advertisement	1000	200
Social Media Campaigning	150	20

Partnering with events	200	30
lot device setup (2)	35	20
Salary (4)	4000	-
Total	5397	320

Hence, the estimated customer acquisition cost for one month can be inferred from the table to be around 16.9€ (cost per new user).

Revenue Stream Type

At present we plan having 2 modes of revenue being generated.

Premium Subscriptions:

Initially users are presented with the free model of the product where they have the limited choice of only 1 interest to be added to their profile. The premium subscription will allow users to attach upto 5 interests in their account. This will benefit users to match themselves with different communities having the same interests as them at a single venue. The set price is established to compete with other platforms such CitySocializer and Open sports who charge 17€ and 20.5€ respectively for their basic premium services.

The monthly subscription will charge users 17.99 €

Rent Payment:

As our application will promote venues which have our IoT devices setup, it will help drive users towards those specific locations. This will help owners, who run such businesses, to advertise their establishments without having to spend huge amounts on advertising on billboards, posters etc. Our payment will be cheaper than renting a vending machine, for 150€ per month.

The monthly subscription will charge owners 100 €

Estimated Lifetime Value

(per segment)

We calculate the lifetime value of a customer by multiplying the average length of a customer's relationship with the company and the value the customer invests in the business.

This will also be split into two segments, same as in the previous section:

- Students who use the app to socialise
- Vendor owners who use the app for publicity

Students (Moderately profitable with moderate relationship length)

Students will be using the application as an icebreaker of sorts to mingle in with the crowd during their initial years at an institution. We are taking into consideration Bachelor's Degree, Master's Degree and PhD students. Even though their lifespans are short, the number of students will be much greater than the number of vendors.

Average Length of Relationship	3 years
Customer Value per year (3 months)	36 €
Estimated Lifetime Value	108 €

Hence the lifetime customer value per user is 108 €.

Vendor Owners (Highly profitable with Higher relationship length)

As mentioned previously, establishment owners will be paying us rent so as to drive more customers using our application towards them. These venues include sports centres, event halls, hotels etc. The average lifespan of such buildings are high, but will be low in number and will increase cost to maintain the IoT devices moving forward.

Average Length of Relationship	15 years
Customer Value per year (10 months)	1000 €
Estimated Lifetime Value	15000 €

Hence the lifetime customer value per venue is 15,000 €.

Itemise business costs

(comparison of total to planned revenue stream)

Business Cost

The business cost calculation will depend on the initial setup charges, monthly maintenance charges and monthly revenue generated. As verified before the cost per month will be around 5397€, yet apart from these components we also will have to set up multiple devices initially to start growing the business and have a server to host this data.

While launching the product, assuming we have established a contract with 50 venues it will cost around 600€ for all the components with an initial setup cost of 350€ and monthly maintenance cost of 50€. Using Google Firebase for an online database will cost around 920€, but will have to scale later on when the user limit breaks. This brings us to an initial fixed cost of around 7317€.

Now assuming we have 30 premium users and 50 venue owners paying us rent we will earn from them 540€ and 5000€ respectively on a monthly basis. Making the initial cost of running the business to $7317 - 5540 = 1777\text{€}$.

Given that once the devices are installed the maintenance cost is significantly less and that the servers are a one time instalment, as long the user cap is met, the revenue generated from both subscriptions and rent will dramatically increase as users grow in numbers.

The organisation would be able to break even and make a profit after around 1 year.

Survey and Conclusion

To better understand the problem space we reached out to students, people we knew who had recently moved to new cities, and our general global connections.

We asked participants the following questions:

1. What is the hardest part of moving to a new city?
2. Are you more likely to befriend someone you met online or in person?
3. Would you be interested in meeting people with similar niche interests?
4. Have you recently wished you had gotten someone's contact information after having met them in person?
5. Would you be more comfortable meeting someone in person if you knew you were both recently in the same place (niche environment like a movie, jazz club, or bookstore)

We reached out to participants through social media, an online form, and through in-person interviews.