Executive Summary

Campaign Overview: iCanTalk is an iPad application made to help people with communication difficulties mostly associated with Autism. The application is an electronic alternative for an analog product available for many years - which is why a heavy brand presence online could help people learn about it, and decide to try it out. Thus our main goal was to raise product awareness as much as possible, and see purchases slowly climb as it rose.

Our proposed strategy was to divide the money equally between the 3 weeks, and somewhat equally divide the money between our campaigns. We created 3 campaigns, containing 194 keywords, and 0 negative keywords (to maximize visibility), and decided on a clearly phrased ad to only attract potential customers.

Key Results: We successfully achieved an ROI of 436% with a sales value of 1091$, while constantly adding 300%-600% more visitors to the company’s website during the duration of the campaign. Not all of our campaigns gave metrics as good as others, so we quickly changed the weight between campaigns to achieve better results.

More purchases are expected in the coming weeks, after people consult with professionals they know about switching to a digital solution.

Conclusion: Our general goals for the campaign were met above and beyond, but it took some time for us to adjust to the real world customer reactions to our different strategies. We constantly adjusted keywords and prices manually, automatically, and using Google AdWords provided tools and monitored reaction closely to maximize customer awareness of the product.

We believe the customers reaction would differ in a different product environment, so one must always monitor reactions closely to understand his products audience and what they react to best.

Future Online Marketing Directions: With the increase in both website visits and product purchases, as well as increased interest via email communications, we highly recommend iCanTalk continue using a targeted AdWords campaign to keep the momentum.

We also recommend other marketers pay attention to the Media Ad option in Google AdWords, as we were able to achieve a large amount of our Clicks through the media, for a significantly cheaper price than the Search Engine AdWords.
Industry Component

**Campaign Overview:** The main goal of our campaign was to increase company’s sales, while the secondary one was to drive traffic to the client’s website in order to increase the applications’ awareness. We focused on getting low CTR, lower cost per conversion and achieve a high conversion rate. Our benchmarks are: CPC of 0.19$ (0.51$ for search campaign and 0.16$ for display campaign) CTR of 0.25% (0.57% for search campaign and 0.23% for display campaign), and a Conversion Rate of 6%.

We reached a low CPC by persistent campaign monitoring in order to adjust our bids. We decreased bids for keyword with high CPC and tried to maintain competitive positions for our ads. We tried increasing CTR for keywords with low CPC by improving the position and relevancy of our ads.

It is important to emphasize our ad was extremely straightforward and clear, it was not a generalized “Help your child communicate” but a direct (translated) “Augmentative and alternative communication - iPad Application for people with poor speech intelligibility to communicated via AAC”. The importance here is the direct relevancy of every click - this makes us care less about CTR and more about CPC. Even when a relatively low CTR is achieved, we know each click was someone interested specifically in what our clients product has to offer. Therefor low CPC is our highest priority by far, and our 0.19$ average is well above our expectancy. In other words, for our campaign **Low CTR with High Click Number = Higher Conversion Rate.**

![Illustration 1: Our Ad](icantalkapp.org)

**Operational Details:** The account was active from May 16, 2013 to June 6, 2013. The account was active twenty four hours a day/seven days a week. We decided at the beginning to divide the budget of $250: 40% Software Campaign, 30% Parent Campaign and 30% Professional Campaign, but after the first week results we decide to focus more on the Parent and Professional Campaigns.

We constantly checked our account to enhance its performance by adjusting our bids and pausing ads that did not perform well. We also utilized the Opportunities Tab and its suggestions to improve our campaign.

At the end of Week 1 the actual budget spent was over the planned one. Thus, the budget was adjusted for Week 2 and 3 and because of our changes we were able to increase the number of clicks by 251.4% on the second week and 271.49% on the last week.

![Figure 1: Cost Per Week](image)
In order to ensure the success of each campaign, close attention was paid to the keywords and Ad Groups. The keywords that were receiving only two or fewer clicks were modified. The operational goal was to establish the best possible balance minimizing CPC and maximizing CTR. Although, we focused a bit more on minimizing CPC. Additionally we tried to locate our ads between first and second positions.

However, at some points we were ready to sacrifice those statistics to increase the level of impressions in order to introduce more unaware people to Augmentative Alternative Communication. The switch to usage of phrase and exact matching, optimization of the most efficient ads techniques, and a landing page using SiteLink allowed us to reach our pre-defined goals. The campaign ended with significant success.

Evolution of campaign strategy: We started our first week, May 16 to May 22, poorly. During the first 2 days we had high CPC (0.87$, 0.77$) and low number of clicks and CTR. Therefore we manually decreased bids to lower CPC but it was still high - above 0.34$, and the number of clicks remained low, which led us to make major changes.

The first change was using Search Terms and Traffic Estimator to identify additional keywords to the Software and Parent campaigns. The result was an increased number of clicks - during the last three days we increased the number of click by 219%, however the CPC remained high.

The second change was adding the Professional Campaign in the middle of the first week (we first planned to add it during the second week), it didn’t increase the number of clicks much at first, but the CPC was low and after seeing its potential we made major changes to the Professional Campaign on the second week.

On our second week, May 23 to May 29, we made three major changes: The first was that we decided to try more general and broad keywords relevant to the Professional and Parent campaigns. The second was adding two new ads - one for the Professional Campaign and the other to the Parent Campaign. They focus more on autistic children (Parent Campaign) and autism therapy (Professional Campaign). These two changes increased impressions and CTR leading us to finish our days budget earlier than expected. This led us to think that with closely monitoring bids and adjust them according to time and budget spent during the day, we could lower the CPC and increase the number of clicks.

To further optimize our acquired knowledge on ad/user behavior during the day, we wrote a script using Google Apps Scripts to automate most of our changes during the day. Our approach was to decrease bids according to the amount of money spent each day (The more money spent, the lower our bids), while maintaining competitive positions of our ads and increasing the number of clicks. A positive side effect of this approach was our willingness to overspend a day’s budget with extremely low cost clicks - after spending most of the days budget we bid extremely low instead of shutting down for the day - this strategy constantly gives us a significant boost in clicks every day.
On the first day of the second week we reach a CPC lower than 0.30$ for the first time, and from that day on until the last day of the campaign we maintain a CPC lower than 0.20$.

On our third week we made two major changes: The first was that we decide to increase significantly the daily budget of the Professional Campaign and decrease the Software Campaigns’ budget and bids. We made these changes after we observed the Professional Campaign show the best performance of the three campaigns in terms of CPC, Clicks and Conversion rate. In addition, the Software Campaign had the highest CPC and lowest Clicks and Conversion rate.

These changes increased the number of Conversions, Clicks and enabled us to maintain a low CPC. The second change was using Google SiteLink Extensions in order to make the ads more relevant to viewers and increase the CTR by providing more paths to the website. The SiteLinks increased the CTR (0.838%), in comparison to the final CTR of the campaign - it increased the CTR by 342%.

Key Results:
The campaign started with unsatisfying performance, but we quickly bounced back and learned the strengths and weaknesses of our advertising category. One important realization was that it was worth waiting for relatively cheap clicks, our show up rate for the entire campaign is an average of 33% - meaning we lost most auctions but we still managed to achieve a very high Click Rate.

Another interesting fact is weekends (the spikes in Figure 3, Figure 1) - Winning auctions with extremely low bids (0.12$ clicks) was very common. It seemed as other businesses had turned off their ads, all while customers were using their free time to search for our relevant terms more than mid-week. To maximize our profit from this situation we doubled the daily budget for the final weekend of the campaign.

Campaign wise - The Professional Campaign was the far most best performing, and should be given a bigger percentage of the funds in any future campaign. The Software Campaign was the worst performing - spending double the share than clicks it received, thus getting almost completely de-funded as the campaign went on.

Another failed strategy during week 3 was trying to use Visual Ads as offered by Google AdWords. After creating an animated ad with the provided tools we achieved a high CTR but with the expense of a high CPC.

As clearly visible by Figure 4, and described more elaborately in the previous section, the many changes we made during each campaign day helped us lower CPC very quickly after starting the campaign, and we were able to keep it stable for the remaining time. In addition we were able to somewhat increase the CTR and keep it stable throughout the campaign.

<table>
<thead>
<tr>
<th>Imagination</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impressions</td>
<td>130,000</td>
<td>124621</td>
<td>197601</td>
</tr>
<tr>
<td>Clicks</td>
<td>277</td>
<td>214</td>
<td>538</td>
</tr>
<tr>
<td>CPC</td>
<td>0.30</td>
<td>0.40</td>
<td>0.147</td>
</tr>
<tr>
<td>CTR</td>
<td>0.20</td>
<td>0.17%</td>
<td>0.27%</td>
</tr>
</tbody>
</table>

Table 1: Key Weekly Results vs. Expectations

<table>
<thead>
<tr>
<th>Keyword</th>
<th>Clicks</th>
<th>CTR</th>
<th>CPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>autism</td>
<td>393</td>
<td>0.28%</td>
<td>0.09</td>
</tr>
<tr>
<td>ออติสึม ด้วยความสูง</td>
<td>126</td>
<td>0.36%</td>
<td>0.12</td>
</tr>
<tr>
<td>ילדיי pdd</td>
<td>75</td>
<td>0.42</td>
<td>0.09</td>
</tr>
</tbody>
</table>

Table 2: Select Keyword Stats

<table>
<thead>
<tr>
<th>Campaign</th>
<th>Clicks</th>
<th>CPC</th>
<th>CTR</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>499</td>
<td>0.23</td>
<td>0.23%</td>
<td>1.5</td>
</tr>
<tr>
<td>Professional</td>
<td>702</td>
<td>0.13</td>
<td>0.26%</td>
<td>2.0</td>
</tr>
<tr>
<td>Software</td>
<td>130</td>
<td>0.37</td>
<td>0.24%</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Table 3: Select Campaign Statistics
**Customer Results:** The iCanTalk application saw results well beyond their expectations. The application which costs 11.99$ had 91 purchases in the Apple AppStore, vs. only 10 purchases for the 3 weeks before the campaign started, a **910% difference**.

Before beginning the campaign the applications website had a steady visitor rate of 40-50 visits per day (as seen in **Figure 7**), after starting the campaign the site received a steady flow of about 2x the number of clicks per day. This can be explained by the nature of the subject being advertised: Within the autism community- family members, co-workers and friends may refer others to relevant information such as finding a new application which may help those referred.

The company expects application sales to rise further in the next coming weeks after the campaign. Due to the subject nature, it is not common to purchase Communication Therapy products within minutes of seeing them for the first time. Most people will take some time for consulting before going through with the purchase.

In addition to the site visits, the owners have received a large response via emails from people who were introduced to the application by the Google Ad. They've received great interest from users with tablets running the Android OS, and are actively looking into creating an Android version of iCanTalk to satisfy public demand.

**Future Recommendations:** We highly recommend our client uses Google Adwords to further promote their application. Specifically campaigns that would be similar to our Professional and Parent campaigns. If a smaller budget is needed, we recommend advertising only on weekends for maximum efficiency.

Additionally, we recommend adding a sort of Newsletter available for website visitors to sign up for, updating them when iCanTalk is available for more devices.

**Learning Component**

**Learning Objectives and Outcomes:** All four members of our team are pursuing a bachelor’s degree in Computer Science. We did not have any past experience with the marketing world prior to this challenge, nor with Google AdWords.

We joined the GOMC as part of an Electronic Commerce course taught by Prof. Amos Fiat at Tel-Aviv University. During the course we studied the GSP algorithm implemented by Google AdWords, and discussed various approaches to generating auctions for online ads. The GOMC helped introduce us to the online marketing world from the small-business perspective; something we believe will help us greatly in future endeavors.
Before joining, terms such as ROI, and CPC were confusing acronyms, but we quickly adjusted using the many tools Google AdWords offers us as customers to get familiarized with the easy to use user interface.

After 21 days of examining and adjusting our campaign on an almost hourly basis, we feel we’ve successfully acquired the knowledge for building a relatively efficient ad campaign. We didn’t expect the close monitoring we ended up doing, assuming in the beginning that with each change in our strategy we would let things “play out”. Most words in our campaign were prone to potentially extreme changes in CPC, ad position and more during different hours of the day.

Towards the end of the campaign we summed up our newly-acquired knowledge on the fluctuations to create a script via Google Apps Scripts that automatically adjusted our bids to minimize CPC without comprising on the amount of clicks.

**Group Dynamics:** Before starting the campaign, we created multiple documents via Google Docs that were shared between all four group members, in addition to the direct access to AdWords all four team members had. As students, we all had different course-loads and the only time during the week we were all in the same classroom was the Electronic Commerce course relevant to the GOMC.

Other than that once-weekly face to face meeting, these Google documents, divided into various subjects relating to the campaign, in addition to email conversations, helped us keep synchronization during all hours of the day. To emphasize our need for constant synchronization, our Change History for 21 days includes 2169 changes.

The GOMC was not the first time we have worked together, so we all knew each other’s working style. Yet we were still surprised from each other and ourselves during the campaign, since we have never worked together on a marketing project - Which brought out a different kind of working method, as individuals and as a group, than the ones we were used to working on Computer Science projects.

**Client Dynamics:** Approaching the client with the idea of working together for the GOMC was very easy. Our client was very excited by the idea of giving Google AdWords another try, after a short experience last year yielded disappointing results. To keep them in the loop, and to help motivate our work, we held a weekly telephone call with them where we updated them with our statistics, and they provided us with sales numbers and other relevant business driven by our campaign.

Given both the clients have full-time jobs irrelevant to the application, and we are full time students, this arrangement helped both sides stay connected without causing any conflicts.

**Future Recommendations:**
- **Better Time Management:** We officially began The Challenge 4 weeks before the final date - meaning we only had 1 week to process all of our data and create the Post Campaign Report. In the future we would manage our time differently to leave a larger margin for the final report.
• **Trying Frequent Improvements Early:** Unknown to us before we began, effects caused by changes to the Google AdWords strategy can be seen in a **matter of minutes**, sometimes even faster. We would recommend trying as many suggested improvements as possible within the first 2 days of a campaign, and summarizing the results into a solid strategy for the rest of the duration, with automation via Google Apps Scripts in mind.

• **Benefit From Social Media:** We didn’t use any social media aspect to further promote our campaign. YouTube videos available on the product website were not targeted by any of our ads, and we did not look into the social presence of the application.

We enjoyed ourselves greatly while working on the GOMC. We feel we have expanded our knowledge and understanding of the Google AdWords system, and believe it is an important tool for our future marketing needs.
function main() {
    var totCost = getTotalCost();
    Logger.log("Total cost so far today: "+ totCost);
    if (totCost < 5) {
        setPhase1Prices();
    } else if (totCost < 8) {
        setPhase2Prices();
    } else if (totCost < 10) {
        setPhase3Prices();
    } else {
        setPhase4Prices();
    }

    function getTotalCost() {
        var campIter = AdWordsApp.campaigns().get();
        var totalCost = 0;
        while(campIter.hasNext()) {
            totalCost += campIter.next().getStatsFor("TODAY").getCost();
        }
        return totalCost;
    }

    function setPhase1Prices() {
        var campaignName = "Professional";
        var adGroupsIterator = AdWordsApp.adGroups()
            .withCondition("CampaignName = "+ campaignName + ":" ).get();
        while (adGroupsIterator.hasNext())
        {
            var adGroup = adGroupsIterator.next();
            adGroup.setKeywordMaxCpc(0.65);
        }
        campaignName = "Parent";
        adGroupsIterator = AdWordsApp.adGroups()
            .withCondition("CampaignName = " + campaignName + ":" ).get();
        while (adGroupsIterator.hasNext())
        {
            var adGroup = adGroupsIterator.next();
            adGroup.setKeywordMaxCpc(0.60);
        }
        campaignName = "Software";
        adGroupsIterator = AdWordsApp.adGroups()
            .withCondition("CampaignName = " + campaignName + ":" ).get();
        while (adGroupsIterator.hasNext())
        {
            var adGroup = adGroupsIterator.next();
            adGroup.setKeywordMaxCpc(0.45);
        }
    }

    function setPhase2Prices() {
        var campaignName = "Professional";
        var adGroupsIterator = AdWordsApp.adGroups()
            .withCondition("CampaignName = " + campaignName + ":" ).get();
        while (adGroupsIterator.hasNext())
        {
            var adGroup = adGroupsIterator.next();
            adGroup.setKeywordMaxCpc(0.65);
        }
        campaignName = "Parent";
        adGroupsIterator = AdWordsApp.adGroups()
            .withCondition("CampaignName = " + campaignName + ":" ).get();
        while (adGroupsIterator.hasNext())
        {
            var adGroup = adGroupsIterator.next();
            adGroup.setKeywordMaxCpc(0.52);
        }
        campaignName = "Software";
        adGroupsIterator = AdWordsApp.adGroups()
            .withCondition("CampaignName = " + campaignName + ":" ).get();
        while (adGroupsIterator.hasNext())
        {
            var adGroup = adGroupsIterator.next();
            adGroup.setKeywordMaxCpc(0.45);
        }
    }

    function setPhase3Prices() {
        var campaignName = "Professional";
        var adGroupsIterator = AdWordsApp.adGroups()
            .withCondition("CampaignName = " + campaignName + ":" ).get();
        while (adGroupsIterator.hasNext())
        {
            var adGroup = adGroupsIterator.next();
            adGroup.setKeywordMaxCpc(0.55);
        }
        campaignName = "Parent";
        adGroupsIterator = AdWordsApp.adGroups()
            .withCondition("CampaignName = " + campaignName + ":" ).get();
        while (adGroupsIterator.hasNext())
        {
            var adGroup = adGroupsIterator.next();
            adGroup.setKeywordMaxCpc(0.52);
        }
        campaignName = "Software";
        adGroupsIterator = AdWordsApp.adGroups()
            .withCondition("CampaignName = " + campaignName + ":" ).get();
        while (adGroupsIterator.hasNext())
        {
            var adGroup = adGroupsIterator.next();
            adGroup.setKeywordMaxCpc(0.45);
        }
    }

    function setPhase4Prices() {
        var campaignName = "Professional";
        var adGroupsIterator = AdWordsApp.adGroups()
            .withCondition("CampaignName = " + campaignName + ":" ).get();
        while (adGroupsIterator.hasNext())
        {
            var adGroup = adGroupsIterator.next();
            adGroup.setKeywordMaxCpc(0.55);
        }
        campaignName = "Parent";
        adGroupsIterator = AdWordsApp.adGroups()
            .withCondition("CampaignName = " + campaignName + ":" ).get();
        while (adGroupsIterator.hasNext())
        {
            var adGroup = adGroupsIterator.next();
            adGroup.setKeywordMaxCpc(0.52);
        }
        campaignName = "Software";
        adGroupsIterator = AdWordsApp.adGroups()
            .withCondition("CampaignName = " + campaignName + ":" ).get();
        while (adGroupsIterator.hasNext())
        {
            var adGroup = adGroupsIterator.next();
            adGroup.setKeywordMaxCpc(0.45);
        }
    }
}

Appendix 1: Script Used To Automate Bidding During Each Day (1)
```javascript
var campaignName = "Professional";

var adGroupsIterator = AdWordsApp.adGroups()
    .withCondition("CampaignName = " + campaignName + ":")
    .get();

while (adGroupsIterator.hasNext())
{
    var adGroup = adGroupsIterator.next();
    adGroup.setKeywordMaxCpc(0.46);
}

campaignName = "Parent";

adGroupsIterator = AdWordsApp.adGroups()
    .withCondition("CampaignName = " + campaignName + ":")
    .get();

while (adGroupsIterator.hasNext())
{
    var adGroup = adGroupsIterator.next();
    adGroup.setKeywordMaxCpc(0.45);
}

campaignName = "Software";

adGroupsIterator = AdWordsApp.adGroups()
    .withCondition("CampaignName = " + campaignName + ":")
    .get();

while (adGroupsIterator.hasNext())
{
    var adGroup = adGroupsIterator.next();
    adGroup.setKeywordMaxCpc(0.40);
}

function setPhase4Prices() {
    var campaignName = "Professional";

    var adGroupsIterator = AdWordsApp.adGroups()
        .withCondition("CampaignName = " + campaignName + ":")
        .get();

    while (adGroupsIterator.hasNext())
    {
        var adGroup = adGroupsIterator.next();
        adGroup.setKeywordMaxCpc(0.35);
    }

    campaignName = "Parent";

    adGroupsIterator = AdWordsApp.adGroups()
        .withCondition("CampaignName = " + campaignName + ":")
        .get();

    while (adGroupsIterator.hasNext())
    {
        var adGroup = adGroupsIterator.next();
        adGroup.setKeywordMaxCpc(0.35);
    }

    campaignName = "Software";

    adGroupsIterator = AdWordsApp.adGroups()
        .withCondition("CampaignName = " + campaignName + ":")
        .get();

    while (adGroupsIterator.hasNext())
    {
        var adGroup = adGroupsIterator.next();
        adGroup.setKeywordMaxCpc(0.35);
    }
}
```

Appendix 1: Script Used To Automate Bidding During Each Day (2)