

# A Playful Tinder-Like Interface for Search and Rescue

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## ABSTRACT

Over the last few years, we have witnessed the rise in gamified interfaces from the use of gamification (e.g. points and leaderboards) to more general playful interactions. With more people connected to the Internet and ownership of mobile devices at its highest point, services need to constant evolving for this agile market. Playful and gameful interfaces form the foundations for many services, from dating apps to communication platforms. The project presented in this paper explores the use of co-designing a micro-volunteering playful interaction in an image recognition task to sort and classify photos in search and rescue scenarios.

## Keywords

Playful, Tinder, Civic Engagement, Drone, Interface, Image Tagging

## INTRODUCTION

The aeroSee platform comprises of drone-captured images and the web-based ‘aeroSee’ application to assist in the search and rescue of missing persons in rural environments. Micro-volunteering dates back centuries and some of the biggest in the industry have not been afraid to experiment with this task shared activity. This coupled with the rise of Web2.0 allowed users to interact differently and collaborate virtually. This sparked the rise of user generated content and virtual communities. Since then we have had; ‘check-ins’, ‘friends’, ‘circles’, ‘tagging’ to name a few. Moreover, Google released Image Labeler (Ahn, 2005), a project which main goal was to fundamentally improve their image search results. The game, comprised of joining two people with no other means of communication other than guessing an image. The game went through many subtle interactions over the course of its 5 years in operation, abuse to the system was one key reason for such changes. Motivation and reliance on citizen input is critical to be successful, for instance without people feeling the need to share stories on Facebook, it would just be a wall without meaning. Still in its infancy, gamification (approx. five years, first used by Deterding et al., 2011) has continued to develop over the last few years with leading brands adopting the use of gamifying a tiresome task into enjoyment exercise. Furthermore, research has progressed from leaderboard and points to studies around gamefulness and playfulness. Mekler et al. (2013), have conducted extensive research in this field using points and meaning as way to improve motivation and

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performance. The study experimented the effect gamification has within a non-game context of tagging photos with points and meaningful framing on performance, tag quality and intrinsic motivations. Amongst other findings, Mekler et al. concludes that by providing a task with frame and meaning inspires and encourages users to participate. Moreover, the use of framing and meaning in micro-volunteering as an approach to progress scientific data, as exemplified by Kawrykow et al. (2012) and CSIRO<sup>1</sup>. In these examples the purpose of ‘doing good’ encourages the community to solve and sort data sets in order to advance knowledge.

From this aeroSee (dating back to 2013) was introduced in an alpha trial within a test environment. The trial was conducted to test the use of the drone and its functionality to capture images and research into building communities. A points-based-leaderboard interface was developed as a way to encourage participants to textually tag photos, but did not provide an increase in performance or quality, similar to findings of other research in this field. Since then, a complete redesign saw the removal of points, rewards and leaderboards and in replaced by the focus on the interaction, playful aspects, story and communities. With this approach in mind, encouraging participation through gameful interfaces based on existing and on-going research in this field the authors drew upon inspiration from commercially available apps such as Tinder and Facebook coupled with related research from within game studies. Tinder, was used in inspiring the main interface and interaction of the platform but not entirely. The swiping motion was adopted to traverse large amounts of photos in a relatively short space of time, with the same rules-based pattern of not allowing a user to go back. However, aeroSee differs in the sense of its two types of interactions: 1) speedy, where a user will continuously tag the photo, moving onto the next to get through the deck quickly; 2) accuracy, where a user will be more accurate in the detail of the photo; zooming, panning and revealing meta data. Even with framing the narrative behind a real world purpose (search and rescue), it is important different user styles of participation were met. Similar to games whereby a player can select their mode of difficulty, aeroSee has been designed to allow users who want to volunteer small amounts of time to traverse the photos in one of the two ways. This paper has concentrated on one feature of the aeroSee platform. Further research into building communities, game design, civic engagement and socialness is required. Which raises questions such as “the ethics of an audience viewing content that could be considered disturbing” and how we might mitigate against this, knowing we have no control over the drone generated content and what it might reveal.

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<sup>1</sup><http://www.csiro.au/en/Research/MF/Areas/Biomedical/Taking-advantage-of-proteins/Cinder>