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**Mem-Friend**

Gathering and retaining information from others, in a professional setting or during day-to-day interactions, presents challenges that this project attempts to overcome. A good memory or good record keeping skills are often required to remember minute details from important conversations. For those working in information-sensitive fields, forgetting such details may result in repercussions in the workplace or legal consequences. Similarly, medical workers rely upon accurate information to provide effectual treatment, and errors in reporting may cause detrimental health effects. In our day-to-day interactions with others, persons with poor memories, or at the extreme, those affected with such disorders such as Alzheimer’s disease, may require assistance remembering names, dates, faces, or simply recalling conversations had with others.

This application attempts to address these issues by recording, transcribing, and summarizing much of the information that presently must be documented by hand. The application first identifies the person standing directly in front of the user by matching the recognized face to previously recorded data, or by creating a new record. By prompt of the user, the application will record and store all desired conversations and transcribe audio recordings to text. This application will then summarize transcribed conversations and provide these summaries and other requested information on a heads-up display.

The form that this project will take is an application on the Google Glass. This technology was chosen as the least obstructive method of obtaining all required information. Previous methods of obtaining the data required, such as note-taking or using a smart phone, would require the user to break eye-contact, or fiddle with a distracting device. The Google Glass will allow the user to retain the effect of having unaided interactions by using the Glass’s hands-free interface and discrete design.

**Intellectual merit:**

As access to various sources of writing and longer files of text has increased, the study of summarization methods and algorithms has received considerable attention. The emphasis and implementation of many studies on summarization, however, has largely focused upon written and edited text. Natural conversation presents unique challenges not present in edited writings, such as “slang” terms or unfinished sentences. As such, few solutions exist for those relying on accurate information, or those who simply have poor memories, providing access to short and easily digestible summaries of important conversations. This application will attempt to address issues of summarizing natural conversations while providing users with a way to remember key details from transcribed audio recordings.

**Broader Impact:**

Users of this application will include those who rely upon accurate information and who are presented with large quantities of important data, such as those in the legal, medical, or research fields. Users who suffer from poor memories or disabilities causing memory loss are also a targeted group. The use of this application will increase participation by these groups in a wide variety of fields, including the research and educational fields, and may improve productivity for certain users. Research in summarizing natural conversation will promote learning and discovery in the field of summarization methodologies.