Massachusetts Institute of Technology
MIT Media Laboratory
FORM 442

Exhibit A

The MIT Media Laboratory is examining the application of Computer-Supported Cooperative Work and User Modeling technologies in a social context. At the core of this project is a modular, extensible communications framework called the Canard Messaging System, that creates a uniform message representation for off-the-shelf and custom built (e.g., wearable computers) technologies (see figure 2). It is intended to function as a communications bridge between people, even when they are unable to handle the communications themselves. Inter-personal and inter-application communications can be quickly developed using this framework. It can exist as a suite of isolated applications, or work in concert with other applications and people where automated cooperation is permitted. Its openness allows a "constructionalist" approach to developing communications solutions. This model is well suited for people with wearable computers who wish to simplify communications with other people through the use of many communications channels.

This license application seeks to incorporate two-way paging technologies into the project. Using over the air technologies will allow the experimental community to extend beyond the physical and virtual confines of the MIT campus. Having this unified communications infrastructure in place will allow us to explore future applications of ubiquitous communications for the benefit of community collaboration that cannot be performed anywhere else. Communications companies will be able to learn from our experience.

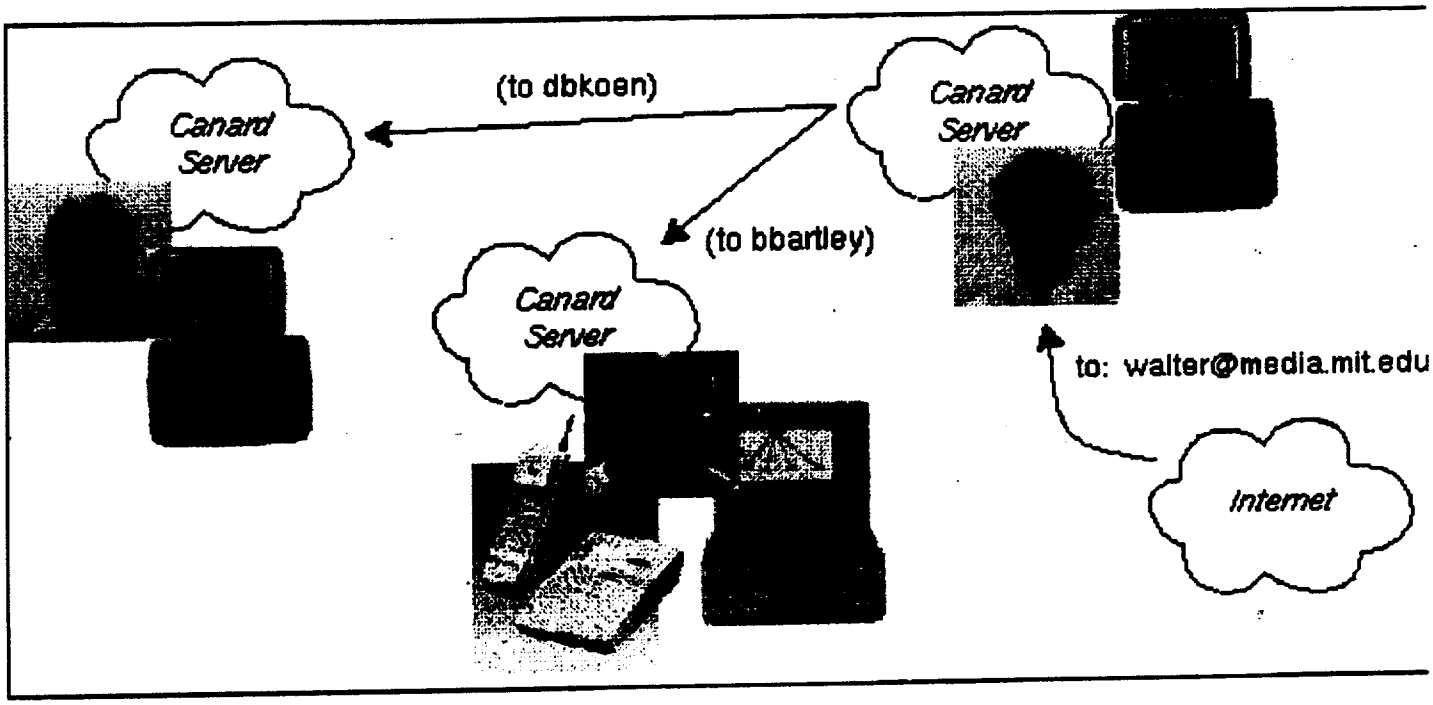

Figure 1: Canard allows for simplified, media rich communication between people. The user need only know the person with whom he is communicating, and not the method of transport. Canard negotiates the most economic channel for the message -- which for the wearable computer user determines the use of a

synchronous, expensive, wireless channel, or the use of a deferred land-line channel.

An on-campus living group of up to 150 students is participating in this experimental framework. This group has intersecting demographics and needs that extend beyond the physical boundaries of their residences. Although they have a number of digital communication streams available (e.g., telephone, electronic mail (e-mail), etc.), it is not an integrated system that encourages group collaboration, nor do all the data streams generally travel with them (e.g., they are not wearable). Monitoring these digital communications, on behalf of the user and group Canard offers the ability to make inferences about member activities and whereabouts. For example, if a group member originates a message from a two-way pager, and no other recent observations were made, the system might infer that the person is away from on-campus communications. In the long run, wearable and environmental devices capable of making direct observations about their users will add strength to the user models we are building.

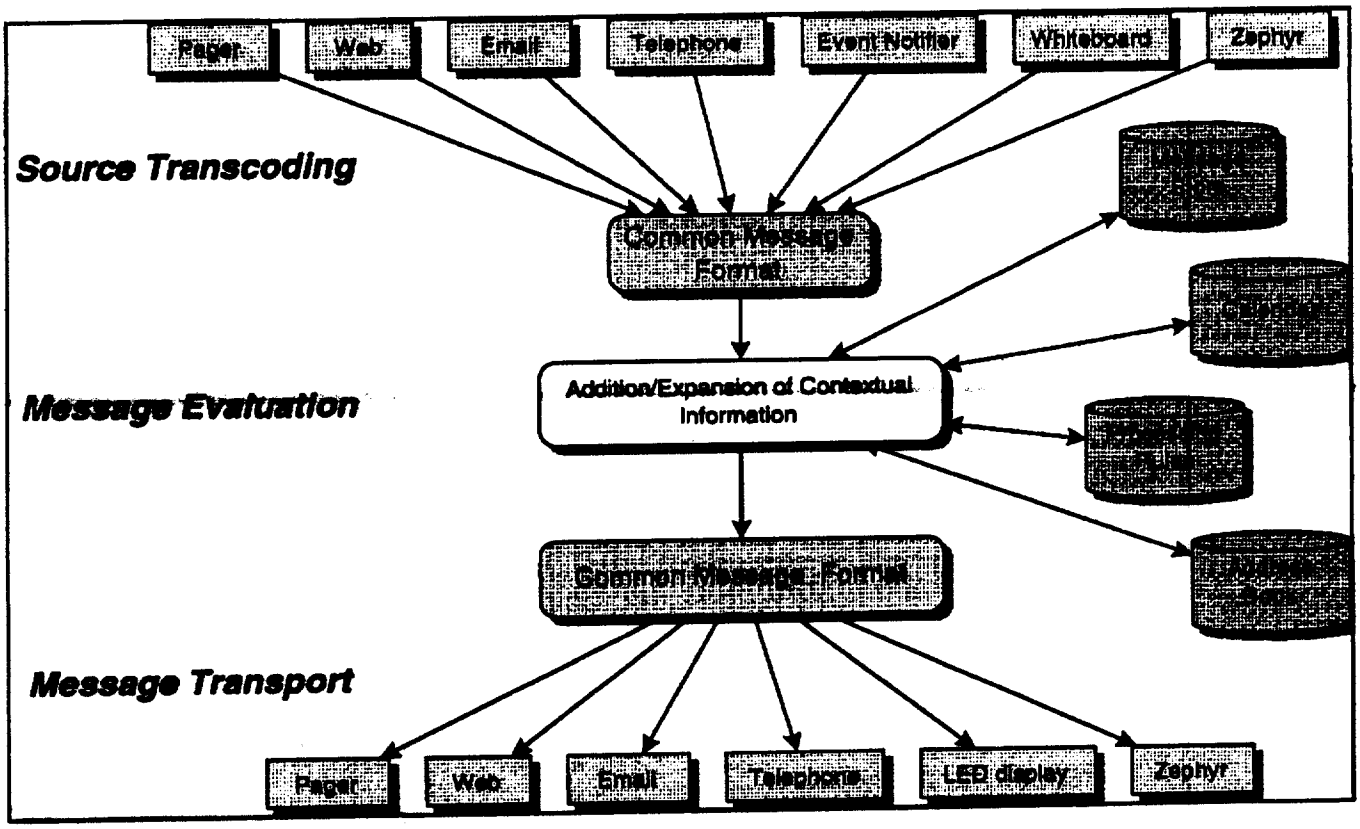

Figure 2: Canard messaging model is a three layer approach: representation, evaluation, and transport. First, source material is analyzed and converted into a uniform representation. Next, at the evaluation layer, one or more programs can be used to analyze the message using personal databases to evaluate its importance, and ultimately, its delivery mechanism. Finally, at the transport layer, a message is transcoded for delivery on a particular channel -- stripping the message of unusable material (i.e., stripping video data to a text only device and instead sending a textual description, if available, of the footage).

Massachusetts Institute of Technology
Media Laboratory

FCC FORM 442

EXHIBIT B

Motorola will own the equipment used for this license. This equipment will be provided for MIT use.

MIT will be the operator of the equipment. The equipment will be under MIT's sole control.

MIT will coordinate its experimental operations with existing licensees on these frequencies.