

Smart Glasses Roadmap
Industry Connections Activity Initiation Document (ICAID)
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1. Contact

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2. Type of Activity

Entity-Based

3. Purpose

3.1. Motivation and Goal

Augmented Reality (and Virtual Reality) technologies are rapidly developing in both the industrial and consumer space, and public interest is growing as information about these technologies is increasingly appearing in mainstream media. Consumer and industrial adoption and acceptance will be dependent on the readiness of technologies relative to interoperability, user interface, cost effectiveness, application, as well as the foundational technology functionality required to provide a positive customer experience.

Smart Glasses is just one of the functional elements that enable these enhanced reality experiences, yet it is a priority issue as it is the “hands-on” element for users, thus the user experience with Smart Glasses will be a driver or a barrier for widespread adoption of these technologies.

This project aims to analyze the markets, use cases and technology considerations that must be addressed to accelerate enhanced reality technology readiness and adoption. It plans to engage with industry experts to identify commonalities and attributes already in place, and more importantly the needs and gaps that need to be addressed.

The focus of the effort will be to develop a roadmap of needs and actions for these technologies including technology standards needs that will enable interoperability and help to address user expectations.

3.2. Related Work

There are an increasing number of industry events where the broad issues of enhanced reality are discussed. While there are individual company views of the technology progression, there are no other focused cross-industry programs specifically targeting the “smart glasses” technology evolution and industry needs.

3.3. Previously Published Material

Various industry and academic technical and marketing focused papers exist, however these have not typically been developed by a broad based industry group.

3.4. Potential Markets Served

Industrial Applications spanning most industries such as power, automotive and other manufacturing environments as a tool for productivity enhancement. The consumer market is also highly important addressing gaming, personal productivity, and entertainment applications.

4. Estimated Timeframe

It is planned to launch the group in June 2015 with an inaugural meeting at Augmented World Expo. A planning group has already formed and is proposing to develop a draft roadmap in the form of a white paper by the end of 2015. Subsequent actions addressing recommendations in the white paper will be planned for 2016.

Expected Completion Date: 12/2016

5. Proposed Deliverables

The group plans to meet on a weekly or bi-weekly basis through the end of 2015 to draft a technology roadmap white paper by the end of 2015.

Subsequent deliverables for 2016 will be determined based on outputs of the group in the initial phase of roadmap development.

6. Funding Requirements

This project is proposed as a strategic Industry Connections activity within the IEEE-SA. In addition to the standard Industry Connections provided services (collaboration tools, virtual meeting support, etc.), SA staff will provide 4-6 hours per week of technical and project management support for this effort. Optionally, IEEE-SA will host a face to face participant meeting at its NJ facilities (a fee may be considered depending on the logistics of the meeting and associated costs).

7. Management and Procedures

7.1. IEEE Sponsoring Committee

Has an IEEE sponsoring committee agreed to oversee this activity?: Yes

Activity initially sponsored by ICom and subject to ICom policies and procedures. The IEEE Digital Senses Initiative will sponsor the activity beginning in July 2016, and the activity will continue to operate per ICom policies and procedures.

7.2. Activity Management

The group will function in accordance with Industry Connections policies and procedures and be managed on a day to day basis by IEEE-SA Industry Connections staff members.

7.3. Procedures

Industry Connections Activity P&Ps will be used for this effort.

8. Participants

8.1. Stakeholder Communities

The core group shown in Section 8.3 will be supplemented by invited participants representing:

1. Smart Glasses vendor (Daqri, ODG, Optinvent, ARA, ..)
2. Chip manufacturing: Qualcomm, Intel, ARM,
3. Sensors/cameras: Softkinetic, Occipital,
4. Fortune 1000 users: Boeing, Newport News Shipping, DHL
5. Power Industry (EPRI)
6. Security
7. Gesture Controllers and interaction (Myo, Eyefluence,)
8. Gaming
9. Optics manufacturers
- 10.App developers
- 11.Venture capitalists
- 12.Medical innovators/ r&d

8.2. Expected Number of Participants

15-20 participants.

8.3. Initial Participants

Entity	Primary Contact	Additional Representatives
AugmentedReality.org	Ori Inbar ori@augmentedreality.org (917) 216-8956	
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