Augmented Reality Directions and Standards

Industry Connections Activity Initiation Document (ICAID)

Version: 1.1, 25 March 2014

Instructions

- Instructions on how to fill out this form are shown in red. It is recommended to leave the instructions in the final document and simply add the requested information where indicated.
- Shaded Text indicates a placeholder that should be replaced with information specific to this ICAID, and the shading removed.
- Completed forms, in Word format, or any questions should be sent to the IEEE Standards Association (IEEE-SA) Industry Connections Committee (ICCom) Administrator at the following address: industryconnections@ieee.org.
- The version number above, along with the date, may be used by the submitter to distinguish successive updates of this document. A separate, unique Industry Connections (IC) Activity Number will be assigned when the document is submitted to the ICCom Administrator.

1. Contact

Provide the name and contact information of the primary contact person for this IC activity. Affiliation is any entity that provides the person financial or other substantive support, for which the person may feel an obligation. If necessary, a second/alternate contact person's information may also be provided.

Name: Brett C. Biermann
Email Address: bc.biermann@gmail.com
Phone: 1.213.278.6905
Employer: The Heavy Projects
Affiliation:

2. Type of Activity

Specify whether this activity will be entity-based (participants are entities, which may have multiple representatives, one-entity-one-vote), or individual-based (participants represent themselves, one-person-one-vote).

Individual Based

3. Purpose

3.1. Motivation and Goal

Briefly explain the context and motivation for starting this IC activity, and the overall purpose or goal to be accomplished.

With the democratization of smart mobile devices (including wearables) increasing exponentially, augmented reality (AR) is quickly becoming a part of everyday human experience. While the value of augmented reality for advertising and increased consumption models is evident, the educational, artistic, and socio-political aspects of AR should be equally nurtured.

The goals of this project are to:

a. Identify and classify types of augmented reality technologies
b. Identify and classify uses of augmented reality
c. Identify gaps in existing nascent standards and recommended practices as AR spreads beyond first adopters
d. Identify need and propose PARs for new standards and best practices for AR technologies
e. Create and maintain an online forum for solicitation of concepts related to the above for the lifetime of the IC program

Building upon existing standards and recommended practices forms a preliminary infra-structure supporting AR's applicability and feasibility for a broad set of uses. This activity fulfills a need in the marketplace to address interoperability issues and promotes AR to the widest possible audience.

Finally, this activity identifies the need for and proposes PARs for new and revised augmented reality standards and provides a venue for innovators to drive the functionality, capabilities, and interoperability of AR to transform the way people live, work, and communicate.

3.2. Related Work

Provide a brief comparison of this activity to existing, related efforts or standards of which you are aware (industry associations, consortia, standardization activities, etc.).

This activity would synthesize and build upon existing work by:

- Perey Research & Consulting (Christine Perey)
- ARStandards.org (Rob Manson)
- AugmentedReality.org (Ori Inbar)

3.3. Potential Markets Served

Indicate the main beneficiaries of this work, and what the potential impact might be.

Main beneficiaries of this work would be:

Hardware Manufacturers:

- Glasses: i.e., Google, Epson, Meta
- Chips: i.e., Qualcomm, Nokia

Software Manufacturers:

- i.e., Qualcomm, Metaio, Layar, Wikitude

Software Developers
Consumers / User Experience (UX)

Potential Impact:

- AR hardware optimized to deliver the best possible AR UX
- Consolidation of programming languages
- Easier entry / softer learning curve for developers
- More consistent understanding of AR by consumers / non-industry insiders

4. Estimated Timeframe

Indicate approximately how long you expect this activity might take to achieve its proposed results (e.g., number of weeks/months/years). Also indicate when you expect this activity to be reviewed by ICCom for completion or possible extension (maximum two years).

This activity will be active for 2 years.

Expected Completion/Review Date: 11.1.2015

5. Proposed Deliverables

Outline the anticipated deliverables and output from this IC activity, such as documents, proposals for standards, conferences and workshops, databases, computer code, etc., and indicate the expected timeframe for each.

- Online Forum: 11.1.15
- White Papers (technical, use cases, etc.): 11.1.15
- Workshops: 1 workshop approx. every 6 months until 11.1.15
- Documented Proposals for Standards: 11.1.15

6. Funding Requirements

Outline any contracted services or other expenses that are currently anticipated, beyond the basic support services provided to all IC activities. Indicate how those funds are expected to be obtained (e.g., through participant fees, sponsorships, government or other grants, etc.). Activities needing substantial funding may require additional reviews and approvals beyond ICCom.

- Basic IC Activities support services
- Fees collected for Workshop participation
- Select white papers for sale

7. Management and Procedures

7.1. IEEE Sponsoring Committee

Indicate whether an IEEE sponsoring committee of some form (e.g., an IEEE Standards Sponsor) has agreed to oversee this activity and its procedures.

Has an IEEE sponsoring committee agreed to oversee this activity?: No

If yes, indicate the sponsoring committee's name and its chair's contact information, and skip the remaining parts of this section (skip 7.2 and 7.3, below).

Sponsoring Committee Name: Committee Name
Chair's Name: Full Name
Chair's Email Address: who@where
Chair's Phone: Number, including country code

Additional sponsoring committee information, if any.

7.2. Activity Management

If no IEEE sponsoring committee has been identified in 7.1 above, indicate how this activity will manage itself on a day-to-day basis (e.g., executive committee, officers, etc).

This group will be governed by a chair and a vice-chair, with additional officers as needed. The first chair will be Brett (BC) Biermann, with Ean Mering serving as vice-chair.

7.3. Procedures

If no IEEE sponsoring committee has been identified in 7.1 above, indicate what documented procedures will be used to guide the initial operations of this activity (e.g., the *Industry Connections Activity Baseline Procedures*).

Industry Connection Activity Policies and Procedures (Individual-Based)

8. Participants

8.1. Stakeholder Communities

Indicate the stakeholder communities (the types of companies or other entities, or the different groups of individuals) that are expected to be interested in this IC activity, and will be invited to participate.

- AR hardware manufacturers (i.e. Google, Epson, Meta, Qualcomm, Nokia)
- AR software companies (i.e. Qualcomm, Metaio, Layar, Wikitude)
- Leading AR software developers
- Artists using AR
- Academics teaching / using AR
- Legal professionals operating in the AR space

8.2. Expected Number of Participants

Indicate the approximate number of entities or individuals expected to be actively involved in this activity.

10-15 Individuals are expected to participate in the initial phase of the activity. It is likely that this activity would grow to 30-40 members.

8.3. Initial Participants

Provide a list of the entities or individuals that will be participating from the outset. It is recommended there be at least three initial participants for an entity-based activity, or five initial participants (each with a different affiliation) for an individual-based activity.

Use the following table for an individual-based activity:

Individual	Employer
Christine Perey	Perey Consulting
Ori Inbar	Augmented Reality.org
Rob Manson	BuildAR
Peter Meier	Metaio
Chris Nunes	Holofy
Brian Wassom	Honigman Law Firm
Martin Herdina	Wikitude
Maarten Lens Fitzgerald	Layar
Ben Blachnitzky	Metaio
Sander Veenhof	AR Artist
Tish Shute	Synertainment Inc.
Anselm Hook	Parc
Dave Lorenzini	Arc
Helen Papagiannis	Infinity Augmented Reality
Gene Becker	Samsung

David Murphy	Meld
Yohan Baillot	AR Consultant
Blair MacIntyre	Georgia Tech