

# EXHIBIT 28

Defendant's Invalidation Contentions  
Exhibit A10

**Invalidity of U.S. Patent No. 6,748,317**  
**by**  
**The Cyberguide System ( the "Cyberguide")**

U.S. Patent No. 6,748,317 (the "'317 Patent") was filed May 5, 2003 and issued June 8, 2004. The '317 Patent claims priority to JP11-197010, filed July 12, 1999. For the purposes of these invalidity contentions, Defendant applies the July 12, 1999 priority date for the '317 Application. However, Defendant reserves the right to contest Plaintiff's reliance on the July 12, 1999 priority date should the priority date become an issue in this proceeding.

The excerpts cited herein are exemplary. For any claim limitation, Defendant may rely on excerpts cited for any other limitation and/or additional excerpts not set forth fully herein to the extent necessary to provide a more comprehensive explanation for a reference's disclosure of a limitation. Where an excerpt refers to or discusses a figure or figure items, that figure and any additional descriptions of that figure should be understood to be incorporated by reference as if set forth fully therein.

Except where specifically noted otherwise, this chart applies the apparent constructions of claim terms as used by Plaintiff in its infringement contentions; such use, however, does not imply that Defendant adopts or agrees with Plaintiff's constructions in any way.

Upon information and belief, the Cyberguide system was made publicly available at least as early as September of 1996. The features and functionalities of the Cyberguide system are described in the following printed publications:

- Abowd, Gregory D., A Mobile Context-Aware Tour Guide, Baltzer Journals (September 23, 1996) ("Abowd")
- Long, Sue, Cyberguide: Prototyping Context-Aware Mobile Applications, Future Computing Environments, <https://www.cc.gatech.edu/fce/cyberguide/pubs/chi96-cyberguide.html> ("Cyberguide Prototyping")
- CyBARguide Project Notes by Mike Pinkerton, Gregory Abowd, and Sue Long, <https://www.cc.gatech.edu/fce/cyberguide/cybarguide/CyBARguide.html> ("CyBARguide")

Because the Cyberguide product itself was known and used by others prior to the '317 Patent's priority date, it constitutes prior art under 35 U.S.C. § 102(a) (pre-AIA). Defendant reserves the right to supplement its theories with additional discovered details describing the features and functionalities of the Cyberguide product that were known or used by others prior to the '317 Patent's priority date. Additionally, because Abowd published on September 23, 1996, it independently constitutes prior art under 35 U.S.C. § 102(b) (pre-AIA).

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Upon information and belief, the Seiko Epson Locatio (the "Locatio") was made publicly available in June of 1999. Therefore, the Locatio qualifies as prior art with regard to the '317 patent under 35 U.S.C. § 102(a) (pre-AIA). Defendants are still conducting discovery with respect to the Locatio and reserve the right to supplement these contentions pending the outcome of such discover. *See* Exhibit A13.

USRE42,927 to Want et al. ("Want") reissued from U.S. Patent No. 6,122,520 which was filed on February 13, 1998 and issued on September 19, 2000. Therefore, Want is prior art to the '317 Patent under 35 U.S.C. § 102(e) (pre-AIA).

U.S. Patent No. 5,815,411 to Ellenby et al. ("Ellenby") was issued September 29, 1998 and therefore qualifies as prior art with regard to the '317 Patent under 35 U.S.C. § 102(b) (pre-AIA).

JPH08-285613 to Akiyama ("Akiyama") published on November 1, 1996. Akiyama therefore qualifies as prior art with regard to the '317 patent under 35 U.S.C. § 102(b) (pre-AIA).

U.S. Patent No. 5,781,150 to Norris ("Norris") was filed on October 13, 1995 issued on July 14, 1998 and therefore qualifies as prior art with regard to the '317 patent under 35 U.S.C. § 102(e) (pre-AIA).

U.S. Patent No. 6,067,502 to Hayashida et al. ("Hayashida") was filed on August 21, 1997 and issued on May 23, 2000. Hayashida therefore qualifies as prior art with regard to the '317 patent under 35 U.S.C. § 102(e) (pre-AIA).

JPH09-311625 to Ikeda ("Ikeda") published December 2, 1997 and therefore qualifies as prior art with regard to the '317 Patent under 35 U.S.C. § 102(b) (pre-AIA).<sup>1</sup>

JPH10-197277 to Maruyama et al. ("Maruyama") published on July 31, 1998 and therefore qualifies as prior art with regard to the '317 Patent under 35 U.S.C. § 102(a) (pre-AIA).

JPH05-264711 ("the '711 Patent") published on October 12, 1993 and therefore qualifies as prior art with regard to the '317 patent under 35 U.S.C. § 102(b) (pre-AIA).<sup>2</sup>

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<sup>1</sup> Defendant relies on a machine translation of this foreign reference, but will supplement these contentions upon receipt of a certified English translation.

<sup>2</sup> Defendant relies on a machine translation of this foreign reference, but will supplement these contentions upon receipt of a certified English translation.

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The Cyberguide anticipates Claims 6-9 under 35 U.S.C. § 102.

The Cyberguide (or the Cyberguide in view of Want) renders Claims 6-9 obvious under 35 U.S.C. § 103.

The Cyberguide (or the Cyberguide in view of Want) in view of Maruyama/the Locatio renders Claims 6-9 obvious under 35 U.S.C. § 103.

The Cyberguide (or the Cyberguide in view of Want) in view of Hayashida/Ellenby/Ikeda renders Claims 1, 10, 12, 15, 17, and 18 obvious under 35 U.S.C. § 103.

The Cyberguide (or the Cyberguide in view of Want) in view of Hayashida/Ellenby/Ikeda in further view of Hayashida/the '711 Patent renders Claims 2 and 11 obvious under 35 U.S.C. § 103.

The Cyberguide (or the Cyberguide in view of Want) in view of Hayashida/Ellenby/Ikeda in view of Maruyama/the Locatio in further view of Hayashida/Norris/Maruyama renders Claims 3 and 13 obvious under 35 U.S.C. § 103.

The Cyberguide (or the Cyberguide in view of Want) in view of Hayashida/Ellenby/Ikeda in further view of Hayashida/the '711/Akiyama Patent renders Claims 2, 14, and 17 obvious under 35 U.S.C. § 103.

The Cyberguide (or the Cyberguide in view of Want) in view of Hayashida/Ellenby/Ikeda in view of Maruyama/the Locatio renders Claims 10, 12, 15, 17, and 18 obvious under 35 U.S.C. § 103.

The Cyberguide (or the Cyberguide in view of Want) in view of Hayashida/Ellenby/Ikeda in view of Maruyama/the Locatio in further view of Hayashida/the '711 Patent /Akiyama renders Claims 14 and 17 obvious under 35 U.S.C. § 103.

The Cyberguide (or the Cyberguide in view of Want) in view of Hayashida/Ellenby/Ikeda in view of Maruyama/the Locatio in further view of Hayashida/the '711 Patent renders Claim 11 obvious under 35 U.S.C. § 103.

U.S. Patent No. 6,748,317	the Cyberguide
<i>Claim 1</i>	
1[P]. A portable terminal, comprising:	The Cyberguide is a portable terminal.

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DOCKET  
ALARM

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*Future computing environments will free the user from the constraints of the desktop. Applications for a mobile environment should take advantage of contextual information, such as position, to offer greater services to the user. In this paper, we present the Cyberguide project, in which we are building prototypes of a mobile context-aware tour guide. Knowledge of the user's current the location, as well as a history of past the location, as used to provide more of the kind of services that we come to expect from a real tour guide. We describe the architecture and features of a variety of Cyberguide prototypes developed for indoor and outdoor use on a number of different hand-held platforms. We also discuss the general research issues that have emerged in our context-aware applications development in a mobile environment.*

*Abowd at 1; see also id. at 2.*

*This section outlines some possible uses for future mobile context-aware applications. Some of these uses are currently being implemented and some are futuristic. We begin with our initial assumptions about what technology we expect Cyberguide to use. Tourists are usually quite happy to carry around a book that describes the location they are visiting, so a reasonable packaging would be in the form of a hand-held device. The ideal hand-held device will have a screen and pen/finger interface, access to substantial storage resources |possibly through an internal device such as a CD drive, or through substantial communication and networking resources (cell phone, pager, data radio interface) providing access to other storage servers (such as the Web)| an audio input and output interface with speech generation and potentially sophisticated voice recognition, and a video input and output interface.*

*Abowd at p. 3.*

*One major application of mobile context-aware devices are personal guides. Museums could provide these devices and allow users to take personalized tours seeing any exhibits desired in any order, in contrast to today's taped tours. In fact, many museums now provide portable devices for just such a purpose, but what we are envisioning is a device that would allow the tourist to go anywhere she pleases and be able to receive information about anywhere she*

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