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Research on semantics used in GPS based mobile phone applications for blind pedestrian navigation in an outdoor environment (Conference Paper)

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Abstract

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The research is based on studies on semantics used in GPS guided mobile navigation applications in particular for blind pedestrians. The scope is in information of words or narrative use in guiding them and how to improve the effectiveness in the semantics via machines learning. These are tested in this research. The long term goal is to create a mobile technology, self-contained system that allows blind users to navigate through unfamiliar environments without the assistance of guides but mobile application. The experiments took place at MFB (Malaysian Foundation for the Blind) using common existing GPS based mobile applications and the results were used to prove the hypothesis that the blind are not supposedly at a substantial disadvantage in independent navigation because of the insufficiency and abnormality in providing information or semantic for them with the GPS navigation technology of today. The outcome derived from the research can further help in creating and improving the semantics of the GPS based navigation technology for the blind pedestrians in an unknown environment. © 2018 IEEE.

SciVal Topic Prominence

Topic: Navigation | Navigation systems | impaired person

Prominence percentile: 95.707

Author keywords

Blind GPS Navigation Pedestrians Semantics Visually impaired

Indexed keywords

Engineering controlled terms: Mobile computing Navigation Semantics

Engineering uncontrolled terms: Blind GPS-based navigation Mobile navigation applications Mobile phone applications Pedestrian navigation Pedestrians Self-contained systems Visually impaired

Engineering main heading: Global positioning system

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Masarweh, M.A. , Masadeh, R. , Qaisi, L.A.
(2014) Proceedings - 2014 8th International Conference on Next Generation Mobile Applications, Services and Technologies, NGMAST 2014

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Song, J. , Song, W. , Cheng, Y.
(2016) International Journal of Smart Home

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1 Kritsotakis, M., Michou, M., Nikoloudakis, E., Bikakis, A., Patkos, T., Antoniou, G., Plexousakis, D.
C-NGINE: A contextual navigation guide for indoor environments

(2008) *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 5355 LNCS, pp. 258-275. Cited 5 times.
ISBN: 3540896163; 978-354089616-6
doi: 10.1007/978-3-540-89617-3-17

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2 Min, B.-C., Saxena, S., Steinfeld, A., Dias, M.B.
Incorporating information from trusted sources to enhance urban navigation for blind travelers

(2015) *Proceedings - IEEE International Conference on Robotics and Automation*, 2015-June (June), art. no. 7139824, pp. 4511-4518. Cited 5 times.
doi: 10.1109/ICRA.2015.7139824

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3 Shim, I., Yoon, J.
A robotic cane based on interactive technology

(2002) *IECON Proceedings (Industrial Electronics Conference)*, 3, pp. 2249-2254. Cited 10 times.

4 (2015) *Visual Impairment and Blindness Fact Sheet N282*. Cited 2 times.
retrieved on Febuary
http://www.who.int/mediacentre/factsheets/fs282/en

5 Loomis, J.M., Marston, J.R., Golledge, R.G., Klatzky, R.L.
Personal guidance system for people with visual impairment: A comparison of spatial displays for route guidance

(2005) *Journal of Visual Impairment and Blindness*, 99 (4), pp. 219-232. Cited 91 times.

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6 Ponchillia, P.E., Rak, E.C., Freeland, A.L., LaGrow, S.J.
Accessible GPS: Reorientation and target location among users with visual impairments

(2007) *Journal of Visual Impairment and Blindness*, 101 (7), pp. 389-401. Cited 21 times.

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7 Markus
(2014) *Comparison of Open Source Routing Services with OpenStreetMap Data for Blind Pedestrians*
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