Deborah I. Fels

Research Contributions (2007-2013)

A. Selected refereed contributions (students indicated in bold)

Book Chapter

R*	Udo, J.P. & Fels, D.I. (2010). From the describer's mouth: reflections on creating unconventional audio description for live theatre. In Serban, A. & Lavaur, J.M (eds.) *Audio Visual Translation*. Peter Lang Publishing Group, New York.
R*	Udo, J.P. & Fels, D.I. (2010). Exemption or not? Copyright and perceptual disability for accessible media. In Coombs, R. & Wershler, D. (eds.) *Dynamic Fair Dealing: Creating Canadian Culture Online*.

Journal articles

R*	Whitfield, M., Fels, D.I. (2013). Inclusive design, audio description, and diversity of theatre experiences. *The Design Journal*. 16(2). 219-238
R*	Ammirante, P, Russo, F.A., Good, A., Fels, D.I. (2012). Feeling voices. PLOS-ONE. Online at http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0053585.
R*	Russo, F.A, **Ammirane, P**. & Fels, D.I. (2012). Vibrotactile discrimination of musical therapy. *Journal of Experimental Psychology: Human Perception and Performance*. 38(4). 822-826.
R*	**Smith, D.** & Fels, D.I. (2012). The disintegrated erotics of second life. *The International Journal of the Image*. 2(3). 125-138.
R	**Branje, C.J.** & Fels, D. (2012). Can amateurs create quality audio description. *J. Visual Impairment and Blindness*. 106(3).
R	Fels, D.I., & Astell, A. (2011). Storytelling as a model of Conversation for People with Dementia and Caregivers. *American Journal of Alzheimers Disease and Other Dementias*. 26(7). 535-541.
R*	Udo, J.P., Copeland, L., Fels, D.I. (2011). Producing audio described theatre: Views from a director and blind describer. *International Journal of Translation Studies*. 23(2). 59-79.
R	Fels, D.I. & Gedeon, S.A. (2011). Understanding motivations of entrepreneurs in the assistive technology market. *Disability and technology.* 23(2). 53-64.
R*	**Vy, Q**., and Fels, D. (2011) Enhanced captioning speaker identification: Text vs. images. *Telecommunications Journal of Australia.* Awarded Telstra-TJA Christopher Newell Prize - 2nd place. 61(2). 29.1-29.13. http://tja.org.au**.**
R	Karam, M., **Branje, C**. Udo, JP, Russo, R., Fels, D.I. (2010). Evaluating a tactile display in a public setting. *Journal of Usability Studies.* 5(4). 132-146.
R*	Udo, J.P. & Fels, D.I. (2010). Horatio audio-describes Shakespeare's Hamlet. *British Journal of Disability*. 28(2). 139-156.
R*	Udo, J.P. & Fels, D.I. (2010). Universal design on stage: Live audio description for theatrical performances. *Perspectives: Studies in Translatology*. 18 (3). 189-203
R*	Udo, JP, Fels, D.I. (2010). Refashioning fashion. *Universal Access and the Information Society*. 9(1). 63-75. Available electronically at www.springerlink.com/openurl.asp?genre=article&id=doi:10.1007/s10209-009-0156-1
R*	Udo, JP., Fels, D.I., (2010). Enhancing the entertainment experience of blind and low-vision theatre-goers through touch tours. *Disability and Society*. *25(2). 231-240.*
R*	Udo, JP., & Fels, D.I. (2009). The rogue poster-children of universal design: Closed captioning and audio description. *Journal of Engineering Design*. 21(2). Pp 207-221**.**.
R*	Udo, J.P., Fels, D.I. (2009). A Dramatic Adaptation: Sighted children audio describe school play for a blind and low-vision audience. *International Journal of Education and the Arts*. 10(20). Available electronically from www.ijea.org/v10n20/
R	Karam, M., Russo, F.A., & Fels, D.I. (2009). Designing the Model Human Cochlea: An Ambient Crossmodal Audio-Tactile Display. *IEEE Transactions on Haptics.* 2(3). 160-169.

R	Udo, JP, & Fels, D.I. (2009). Suit the action to the word, the word to the action": An unconventional approach to describing Shakespeare's Hamlet. *J. Visual Impairment and Blindness*. *103(3)*. 178-184
R	**Rashid, R., Vy, Q., Hunt, R**., & Fels, D.I. (2008). Dancing with words. *International Journal of Human-Computer Interaction. 24(5).* 505 - 519.
R	**Konstantinidis, B., Price, E**., & Fels, D.I. (2008). Described video information and animation: a case study of Odd Job Jack. *International J. of Social and Humanistic Computing. 1(1).* 108 – 122.
R	**Lee, D.G., Udo, JP.,** Fels, D.I. (2007). Enhanced captions. *Computers and Entertainment*. 5(2).

B. Other refereed contributions - selected listing (students listed in bold)

Conference proceedings

R*	**Pouris, M.** & Fels, D. I. (2012). Creating an entertaining and informative music visualization. *ICCHP 2012*. Linz**.** pp. 451-458.
R*	**Baijal, A., Kim. J., Branje, C.,** Russo, F.A., Fels, D.I. (2012). Composing vibrotactile music: A multi-sensory experience with the Emoti-Chair. *IEEE Haptics*. Vancouver. Pp. 509-515.
R	**Bajko, R**., & Fels, D.I. (2011). Mobile telephone Usage and Perception During Group Meetings. CONISAR. North Carolina. Winner, Meritorious PhD paper award
R	**Hibbard, E.,** Fels, D.I. (2011). The vlogging phenomena: A Deaf perspective. *ASSETS 2011*. Dundee. Pp. 59-66.
R	**Webster, G.** Fels, D.I., Gowans, G., Hanson,V.L. (2011). Portraits of individuals with dementia: videos of care managers. *British HCI*. Bath. pp. 331-340.
R*	Naraine, M., & Fels, D.I. (2011). When audio description came to town. A longitudinal study. *FICCDAT*. Toronto**.**
R	Fels, D.I. & Astell, A. (2011). Let me tell you a story: A model of conversation for people with dementia. *CHI workshop*: CHI Bridging practices, theories and technologies to support reminiscence. Vancouver.
R*	Fels, D.I., **Gerdzhev, M., Ho, J., Hibbard, E**. (2010) Usability and use of SLS:Caption. *ASSETS2010*. Orlando. Pp. 291-292.
R*	**Vy, Q. V**., & Fels, D.I. (2010). Enhanced captioning: Using avatars for speaker identification. *ICCHP 2010*. Vienna. Pp. 247-254.
R	Karam, M., **Branje, C.,** Nespoli, G. Thompson, N., Russo, F.A., Fels, D.I. (2010) The Emoti-Chair – An interactive cross-modal tactile music display. *CHI2010*. Atlanta. Pp. 3069-3074.
R	Karam, M**., Branje, C**., Russo, F., Fels, D.I. (2010). Vibrotactile display of music on the human back. *ACHI2010.* Barcelona. Pp 154-159.
R*	**Mori, J**. & Fels, D.I. (2009). See the music: Can animated lyrics provide access to the emotions in music for people who are deaf or hard of hearing? *IEEE Toronto International Conference – Science Technology for Humanity.* Toronto. Pp. 951-956.
R*	**Fourney, D.,** & Fels, D.I. (2009). Creating access to music through visualization. *IEEE Toronto International Conference – Science Technology for Humanity.* Toronto. Pp. 939-944.
R	**Branje, C., Maksimowski, M.,** Nespoli, G., Karam, M., Fels, D. I. & Russo, F. (2009). Development and validation of a sensory-substitution technology for music. *2009 Conference of the Canadian Acoustical Association*. Niagara on the Lake**.**
R	Russo, F.A., **Maksimowski, M**., Karam, M. and D. I. Fels. D.I. (2009). Vibrotactile discrimination of musical timbre. *Society for Music Perception and Cognition*. Windsor.
R	Fels, D.I., **Gerdzhev, M., Hibbard, E**., Goodrum, A., & Richards, J. (2009). Sign language online with Signlink Studio 2.0. *HCI International*. San Diego.
R*	**Vy, Q.,** & Fels, D.I., (2009). Who's Saying What? Using Avatars for Speaker Identification. *Interact 2009*. Uppsala. Pp. 916-919.
R*	**Vy, Q. V., Mori, J., Fourney, D**., & Fels, D.I. (2008). EnACT: A software tool for creating animated text captions. *ICCHP 2008*. Linz. pp. 609-616.
R	**Karam, M., Branje, C**., **Price, E.**, Russo, F., & Fels, D.I. (2008). Towards A Model Human Cochlea:

	Sensory substitution for crossmodal audio-tactile displays. *Proceedings of Graphics Interface 2008.* Windsor. pp 267-274.
R	**Karam, M,** & Fels, D.I. (2008). Designing a Model Human Cochlea: Issues and challenges in crossmodal audio to touch displays. *Haptics in ambient systems*. Quebec City.
R	**Rashid, R., Vy, Q., Hunt, R**., & Fels, D.I. (2007). Dancing with words. *Creativity and Cognition 2007*. Washington DC. pp. 269-270.

My role in co-authored publications is to contribute at least one section of the paper, often it is a component of the introduction and discussion sections of the paper, and the statistical analysis.

C. Non-refereed contributions – selected listing (I = independent)

	Guest co-editor. Technology and Disability Journal (issue 1 of 2014).
I	Invited seminar: Inclusive Design. University of Surrey, Faculty of Management. Oct. 2011
	Invited demonstration and presentation: Inclusive Design and Media Access. Turner Broadcasting Inc. Oct. 2011
I	Inclusive gaming. Public lecture. University of Dundee. Dundee, Scotland**.** Dec. 2009.
	Alternative approaches for Closed Captioning & Audio Description. Invited Presentation at Accessibility Hearings at CRTC. Nov. 2008

D. Forthcoming contributions

In Press	**Bajko, R**. & Fels, D. I. (2013). Meeting participant perception and usage of smartphones and other mobile devices during meetings. Accepted to IEEE Professional Communication.
In Press	**Branje, CJ**., Nespoli, G., Russo, F., Fels, D.I. The horror of vibrotactile stimulation. *ACM Computers and Entertainment.*
In Press	**Webster, G**., Fels, D. Portraits of people with dementia. *American Journal of Alzheimers Disease and Other Dementias.*
In Press	Naraine, M. Fels, D.I., Lindsay, P. Workplace social inclusion of blind employees. *British Journal of Visual Impairment.*

E. Literary and artistic works

Installation	An Evening of Sensory Fusion. Installation of Emoti-Chair at Petit Nuit Blanche. Museum London, London, Ont. June 2012.
Installation	Vlogging at the DCC. Nuit Blanche exhibit at the Deaf Culture Centre. Toronto, Ont. Oct. 1, 2011
Installation	Vibes! Feel It!. Deaf Culture Centre. Toronto. Oct. 2, 2010
Installation	Enhanced captioning exhibit. Deaf Culture Centre. Toronto. Dec. 08-pres.
Concert	Feel the Music: Concert at Clinton's Tavern. Five live bands and Emoti-chairs. Mar. 09.
Installation & concert	Emoti-chair: Exhibit at Ontario Science Centre. Weston Family Ideas Centre. Sept. 08-Jan.09. Live concert with three live bands and the Emoti-chairs. Oct. 2008.

2. Other Research Contributions
A. Patents:
Provisional US Patent: Model Human Cochlea (submitted May 2009).
B. Media articles
In 2008-2009 there have been over 77 media reports on the Emoti-chair. For example:
Radio - "The Emoti-chair" CBC Hear and Now Interview by Matt Gallaway, Feb. 8, 2009.
Television – **"**Can This Chair Really Allow Deaf People to Feel What It's Like at a Concert?" CBC News and Current Affairs as reported by Deana Sumanac. Aired March 8, 2009.
Print media - "Emoti-chair delivers good vibrations to deaf" by Debra Black. The Toronto Star, Tuesday July 2, 2008, Section A1, page 1.

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3. Most Significant Career Research Contributions
1. **Vy, Q**., and Fels, D. (2011) Enhanced captioning speaker identification: Text vs. images. *Telecommunications Journal of Australia.* Awarded Telstra-TJA Christopher Newell Prize - 2nd place. 61(2). 29.1-29.13. http://tja.org.au.
2. Udo, JP., & Fels, D.I. (2009). The rogue poster-children of universal design: Closed captioning and audio description. *Journal of Engineering Design*. 21(2). Pp 207-221.
3. Karam, M., Russo, F.A., & Fels. D.I. (2009). Designing the Model Human Cochlea: An Ambient Crossmodal Audio-Tactile Display. IEEE Journal on Haptics. ttp://doi.ieeecomputersociety.org/10.1109/TOH.2009.32.
4. Udo, JP, & Fels, D.I. (2009). Suit the action to the word, the word to the action": An unconventional approach to describing Shakespeare's Hamlet. *J. Visual Impairment and Blindness*. *103(3). 178-184.*
5. Rashid, R., Vy, Q., Hunt, R., & Fels, D.I. (2008). Dancing with words. *International Journal of Human-Computer Interaction. 24(5).* 505 - 519.

   I am developing a significant body of research on exploring and developing tools and processes for accessible digital media including on-line video content, digital broadcast content, music and digital film. These five papers represent the most recent work that has been carried out by Dr. Fels and are some of the first papers to be published in this area. In particular, the Emoti-chair represents a universal design and sensory substitution approach to inclusive music, composition and performance that may have wide-spread applications and commercialization opportunities.

   We are also beginning to transfer the research to the community. We introduced audio description to Canada with the first described presentation of a live theatre production, Hamlet, in November 2006 at Hart House Theatre in Toronto. Since 2006, we have worked with nine different theatre and performance groups to produce described versions of their productions. Each group has taken a different approach offering the opportunity to explore the creative potential for audio description. Further, we worked with Deluxe Inc. to create and deliver audio description in conjunction with television producers resulting in the 2010 CBC broadcast of the Kids in the Hall mini-series, Death Comes to Town.

4. Contributions to Training

| 2009-present | Post doctoral fellow, Mala Naraine. |
| 2007-2010 | Post doctoral fellow, Maria Karam. |

Graduate Student Supervision – PhD (past 6 years)

Year	Name	Program	University
2013-present	Katie Seaborn	Industrial Engineering (co-supervisor)	Toronto
2009-2011	Gemma Webster	Computing (co-supervisor)	Dundee, UK
2009-present	Carmen Branje	Industrial Engineering (co-supervisor)	Toronto
2008-2011	David Smith	Communication & Culture	York
2007-present	Ellen Hibbard	Communication & Culture	Ryerson
2006-present	Robert Bajko	Communication & Culture	Ryerson

Graduate Student Supervision – Masters (past 6 years – selected list)

Year	Name	Program	University
2012-present	Joe Moscatiello	MASc., Computer Science	Ryerson
2011-present	Greg Dolinar	MMSc. Management of IT	Ryerson
2011-present	Xue Fei	MMSc. Management of IT	Ryerson
2011-present	Mike Pouris	MASc., Computer Science	Ryerson
2010-2013	Sai Cherkumilli	MASc., Computer Science	Ryerson

   2003-2010   Dr. Fels has served on numerous Master and PhD committees as a committee member or external examiner.