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|                     |              |               |                                                                                 |        |              |              |              | 163              | /34                                               | 6/35/         |                                  |
|---------------------|--------------|---------------|---------------------------------------------------------------------------------|--------|--------------|--------------|--------------|------------------|---------------------------------------------------|---------------|----------------------------------|
| Identi              | ficati       | on            |                                                                                 |        |              |              |              | •                |                                                   | •             |                                  |
| Statistica          | al and Ad    | dministrative | ame section will be made<br>Information will be used<br>on section is optional. |        |              |              |              |                  |                                                   |               | •                                |
| Name                |              |               |                                                                                 |        |              |              |              |                  |                                                   |               |                                  |
| Family na           | ame          |               |                                                                                 | Give   | n name       |              |              |                  |                                                   | Initials      | Title                            |
| Fels                |              |               |                                                                                 | Deb    | orah         |              |              |                  |                                                   | I             | Dr.                              |
| Citizen             | ship -       | Applicants a  | and co-applicants must in                                                       | dicate | e their citi | zenship st   | atus by      | checking and     | answerir                                          | ng the applic | able questions.                  |
| Citizensh<br>status | nip 🔘        | Canadian (    | Permanent resident si                                                           | ince   | Oth          | er (countr   | y)           |                  |                                                   |               | you applied for anent residency? |
|                     |              |               |                                                                                 |        |              |              |              |                  |                                                   | _             | es No                            |
| Statist             | ical an      | nd Admini     | strative Informatio                                                             | n      |              |              |              |                  |                                                   |               |                                  |
| Birth yea           | r Gen        | der           | Permanent postal code in Canada (i.e. K2P1G4)                                   |        | 1 1          |              |              |                  | ous contact with SSHRC? oplicant, assessor, etc.) |               |                                  |
| 1963                |              | F OM          | M5B2K3                                                                          |        |              | English      | ○ Fr         | ench             |                                                   | Yes           | <b>●</b> No                      |
| Full name           | e used o     | during previo | ous contact, if different fro                                                   | m abo  | ove          |              |              |                  |                                                   |               |                                  |
|                     |              |               |                                                                                 |        |              |              |              |                  |                                                   |               |                                  |
| Conta               | ct Info      | ormation      | 1                                                                               |        |              |              |              |                  |                                                   |               |                                  |
| The followexpress   |              |               | help us to contact you m                                                        | ore ra | pidly. Se    | condary in   | formation    | on will not be r | eleased l                                         | by SSHRC      | without your                     |
| Primary t           | telephon     | e number      |                                                                                 |        |              | Seconda      | ary tele     | phone number     |                                                   |               |                                  |
|                     | Area<br>code | Number        | Extension                                                                       | l      |              | Country code | Area<br>code | Number           |                                                   | Exten         | sion                             |
|                     | 416          | 9795000       | 7619                                                                            |        |              |              |              |                  |                                                   |               |                                  |
| Primary fax number  |              |               |                                                                                 |        | Seconda      | ary fax      | number       |                  |                                                   |               |                                  |
|                     | Area<br>code | Number        | Extension                                                                       | ı      |              | Country code | Area<br>code | Number           |                                                   | Exten         | sion                             |
|                     | 416          | 9795249       | )                                                                               |        |              |              |              |                  |                                                   |               |                                  |
| Primary I           | E-mail       | dfels@        | ryerson.ca                                                                      |        |              |              |              |                  |                                                   |               |                                  |
| Seconda             | ry E-ma      | il            |                                                                                 |        |              |              |              |                  |                                                   |               |                                  |

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Family name, Given name Fels, Deborah

| Current Address Use only if you are not affiliated with a university. (If you are affiliated with a university, the department's mailing awish to use another address, specify i Address. | Correspondence Address Complete this section if you wish your correspondence to be sent to an address other than your current address. |                        |                                                                  |  |                 |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------------|--|-----------------|-----------------|
| Address 350 Victoria St.                                                                                                                                                                  | Address                                                                                                                                |                        |                                                                  |  |                 |                 |
| City/Municipality Toronto                                                                                                                                                                 | Prov. /<br>State                                                                                                                       | Postal/Zip code M5B2K3 | City/Municipality                                                |  | rov. /          | Postal/Zip code |
| Country CANADA                                                                                                                                                                            |                                                                                                                                        |                        | Country                                                          |  |                 |                 |
| Temporary Address If providing a temporary address, phone number and/or E-mail, ensure that you enter the effective dates.                                                                |                                                                                                                                        |                        | Permanent Address in CANADA                                      |  |                 |                 |
| Address                                                                                                                                                                                   | Address                                                                                                                                |                        |                                                                  |  |                 |                 |
| City/Municipality                                                                                                                                                                         | Prov./<br>State                                                                                                                        |                        | City/Municipality                                                |  | Prov./<br>State | Postal/Zip code |
| Country                                                                                                                                                                                   |                                                                                                                                        |                        | Country                                                          |  |                 |                 |
| Start date End date (yyyy/mm/dd) (yyyy/mm/dd)                                                                                                                                             |                                                                                                                                        |                        | Temporary telephone/fax numl<br>Country Area Number<br>code code |  | tension         |                 |
| Temporary E-mail                                                                                                                                                                          |                                                                                                                                        |                        |                                                                  |  |                 |                 |

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Family name, Given name

Fels, Deborah

The information provided in this section refers to your own research expertise, not to a research proposal. Filling out the following 4 sections is optional. This page will not be seen by selection committee members and external assessors. This section will be used for planning and evaluating programs, producing statistics, and selecting external assessors and committee members.

#### **Areas of Research**

Indicate and rank up to 3 areas of research that best correspond to your research interests as well as areas where your research interests would apply. Duplicate entries are not permitted.

| Rank | Code | Area                                                 |
|------|------|------------------------------------------------------|
| 1    | 244  | Innovation, Industrial and Technological Development |
| 2    | 100  | Arts and culture                                     |
| 3    | 242  | Information Technologies                             |

#### **Temporal Periods**

If applicable, indicate up to 2 historical periods covered by your research interests.

| From                  | То             |
|-----------------------|----------------|
| Year  BC AD  ———— ○ ○ | Year   BC   AD |

### **Geographical Regions**

If applicable, indicate and rank up to 3 geographical regions covered by your research interests. Duplicate entries are not permitted.

| -    |      |        |  |  |  |  |
|------|------|--------|--|--|--|--|
| Rank | Code | Region |  |  |  |  |
| -    |      |        |  |  |  |  |
| 1    |      |        |  |  |  |  |
| 2    |      |        |  |  |  |  |
| 3    |      |        |  |  |  |  |

#### **Countries**

If applicable, indicate and rank up to 5 countries covered by your research interests. Duplicate entries are not permitted.

| Rank | Code | Countries | Prov./<br>State |
|------|------|-----------|-----------------|
| 1    |      |           |                 |
| 2    |      |           |                 |
| 3    |      |           |                 |
| 4    |      |           |                 |
| 5    |      |           |                 |

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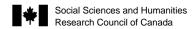
# **Curriculum Vitae**

Family name, Given name

Fels, Deborah

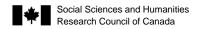
| Language Proficiency                                                                                     |                                          |           |                  |                |              |                         |                      |                       |
|----------------------------------------------------------------------------------------------------------|------------------------------------------|-----------|------------------|----------------|--------------|-------------------------|----------------------|-----------------------|
| Read                                                                                                     | Write                                    | Speak     | Comprehend a     | urally         | Other lan    | guages                  |                      |                       |
| English X                                                                                                | X                                        | X         | X                |                |              |                         |                      |                       |
| French                                                                                                   | Ш                                        |           |                  |                |              |                         |                      |                       |
| Work Experie                                                                                             |                                          |           |                  |                |              |                         |                      |                       |
| chronological order,                                                                                     |                                          |           | u nave neid begi | nning with the | e current po | sition and all previous | positions in re      | everse                |
| Current position                                                                                         |                                          |           |                  |                |              |                         |                      | Start date (yyyy/mm)  |
| Full Professor                                                                                           |                                          |           |                  |                |              |                         |                      | 1995/9                |
| Org. code                                                                                                | Full organization                        | name      |                  |                |              |                         | •                    |                       |
| 1352011                                                                                                  | Ryerson Uni                              | iversity  |                  |                |              |                         |                      |                       |
| Department/Division                                                                                      | name                                     |           |                  |                |              |                         |                      |                       |
| School of Info                                                                                           | rmation Tech                             | nology M  | lanagement       |                |              |                         |                      |                       |
| Position type                                                                                            | Tenured                                  | ◯ No      | n-tenure         | Employmen      | t status     | Full-time               | O Part-tir           | me                    |
|                                                                                                          | Tenure-track                             | ○ No      | n-academic       |                |              | Non-salaried            | O Leave              | of absence            |
| Position                                                                                                 |                                          |           |                  |                |              |                         | Start date (yyyy/mm) | End date<br>(yyyy/mm) |
| Researcher                                                                                               |                                          |           |                  |                |              |                         | 1994                 | 1995                  |
| Org. code                                                                                                | Full organization                        | name      |                  |                |              |                         |                      |                       |
| 1                                                                                                        | Bloorview I                              | MacMilla  | n Children's     | Centre         |              |                         |                      |                       |
| Department/Division                                                                                      | name                                     |           |                  |                |              |                         |                      |                       |
| Microcompute                                                                                             | er Application                           | s Prograr | nme              |                |              |                         |                      |                       |
| Position                                                                                                 |                                          |           |                  |                |              |                         | Start date (yyyy/mm) | End date<br>(yyyy/mm) |
| Assistant Profe                                                                                          | essor                                    |           |                  |                |              |                         | 1993                 | 1995                  |
| Org. code                                                                                                | Full organization                        | name      |                  |                |              |                         |                      |                       |
| 1350311                                                                                                  | University of                            | of Guelph | 1                |                |              |                         |                      |                       |
| Department/division                                                                                      | name                                     |           |                  |                |              |                         |                      |                       |
| Computing and                                                                                            | d Information                            | Science   |                  |                |              |                         |                      |                       |
| Position                                                                                                 |                                          |           |                  |                |              |                         | Start date (yyyy/mm) | End date<br>(yyyy/mm) |
|                                                                                                          |                                          |           |                  |                |              |                         | 1993                 |                       |
| Org. code                                                                                                | Full organization                        | name      |                  |                |              |                         | ,                    |                       |
| 1350911 University of Toronto                                                                            |                                          |           |                  |                |              |                         |                      |                       |
| Department/Division                                                                                      | name                                     |           |                  |                |              |                         |                      |                       |
| Faculty of App                                                                                           | Faculty of Applied Science & Engineering |           |                  |                |              |                         |                      |                       |
| ersonal information will be stored in the Personal Information Bank for the appropriate program.  Web CV |                                          |           |                  |                |              |                         |                      |                       |

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| Family name, Given name |  |
|-------------------------|--|
| Fels. Deborah           |  |

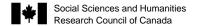
| Work Experie        | ence (cont'd)            |                       |           |  |  |  |  |
|---------------------|--------------------------|-----------------------|-----------|--|--|--|--|
| Position            | Start date (yyyy/mm)     | End date<br>(yyyy/mm) |           |  |  |  |  |
| Director            | 1987                     | 1990                  |           |  |  |  |  |
| Org. code           | Full organization name   |                       |           |  |  |  |  |
| 1                   | Centenary Hospital       |                       |           |  |  |  |  |
| Department/Division | name                     |                       |           |  |  |  |  |
| Medical Engine      | eering                   |                       |           |  |  |  |  |
| Position            |                          | Start date            | End date  |  |  |  |  |
|                     |                          | (yyyy/mm)             | (yyyy/mm) |  |  |  |  |
| Org. code           | Full organization name   |                       |           |  |  |  |  |
|                     |                          |                       |           |  |  |  |  |
| Department/Division | name                     |                       |           |  |  |  |  |
|                     |                          |                       |           |  |  |  |  |
| Position            |                          | Start date            | End date  |  |  |  |  |
|                     |                          | (yyyy/mm)             | (yyyy/mm) |  |  |  |  |
| Org. code           | Full organization name   |                       |           |  |  |  |  |
|                     |                          |                       |           |  |  |  |  |
| Department/Division | name                     |                       |           |  |  |  |  |
|                     |                          |                       |           |  |  |  |  |
| Position            |                          | Start date            | End date  |  |  |  |  |
|                     |                          | (yyyy/mm)             | (yyyy/mm) |  |  |  |  |
| Org. code           | Full organization name   |                       |           |  |  |  |  |
|                     |                          |                       |           |  |  |  |  |
| Department/Division | name                     |                       |           |  |  |  |  |
| ·                   |                          |                       |           |  |  |  |  |
| Position            |                          | Start date            | End date  |  |  |  |  |
|                     |                          | (yyyy/mm)             | (yyyy/mm) |  |  |  |  |
| Org. code           | Full organization name   |                       |           |  |  |  |  |
|                     |                          |                       |           |  |  |  |  |
| Department/Division | Department/Division name |                       |           |  |  |  |  |
|                     |                          |                       |           |  |  |  |  |
|                     |                          |                       |           |  |  |  |  |



| Family name, Given name |
|-------------------------|
| Fels, Deborah           |

| Academic Background                                                                                                                   |                             |                      |                                 |                           |  |
|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------|---------------------------------|---------------------------|--|
| List up to 5 degrees, beginning with the highest degree first and all others in reverse chronological order, based on the start date. |                             |                      |                                 |                           |  |
| Degree type                                                                                                                           | Degree name                 | Start date (yyyy/mm) | Expected date (yyyy/mm)         | (yyyy/mm)                 |  |
| Doctorate                                                                                                                             | PhD, Industrial Engineering | 1990/09              |                                 | 1994/11                   |  |
| Disc. code                                                                                                                            | Discipline                  |                      | Did SSHRC su you to get this    |                           |  |
| 80800                                                                                                                                 | Engineering                 |                      | Yes                             | <b>●</b> No               |  |
| Org. code                                                                                                                             | Organization                |                      |                                 |                           |  |
| 1350911                                                                                                                               | University of Toronto       |                      |                                 |                           |  |
| CANAD                                                                                                                                 | )A                          |                      |                                 |                           |  |
| Degree type                                                                                                                           | Degree name                 | Start date           |                                 | Awarded date              |  |
| Master's                                                                                                                              | M.HSc Clinical Engineering  | (yyyy/mm)<br>1985/09 | (yyyy/mm)                       | (yyyy/mm)<br>1987/11      |  |
| Disc. code                                                                                                                            | Discipline                  | 1903/09              | Did SSHRC su                    |                           |  |
| D100. 00dc                                                                                                                            | Sidolphilio .               |                      | you to get this                 |                           |  |
| 80800                                                                                                                                 | Engineering                 |                      | Yes                             | <b>●</b> No               |  |
| Org. code                                                                                                                             | Organization                |                      |                                 |                           |  |
| 1350911                                                                                                                               | University of Toronto       |                      |                                 |                           |  |
| CANAD                                                                                                                                 | oA                          |                      |                                 |                           |  |
| Degree type                                                                                                                           | Degree name                 | Start date (yyyy/mm) | Expected date (yyyy/mm)         | Awarded date (yyyy/mm)    |  |
| BA Hon.                                                                                                                               | B.A.Sc.                     | 1980/09              |                                 | 1985/06                   |  |
| Disc. code                                                                                                                            | Discipline                  |                      | Did SSHRC su you to get this    |                           |  |
| 80800                                                                                                                                 | Engineering                 |                      | Yes                             | <b>●</b> No               |  |
| Org. code                                                                                                                             | Organization                |                      |                                 |                           |  |
| 1350311                                                                                                                               | University of Guelph        |                      |                                 |                           |  |
| CANAD                                                                                                                                 | )A                          |                      |                                 |                           |  |
| Degree type                                                                                                                           | Degree name                 | Start date (yyyy/mm) | Expected date (yyyy/mm)         | Awarded date<br>(yyyy/mm) |  |
| Disc. code                                                                                                                            | Discipline                  |                      | Did SSHRC su<br>you to get this |                           |  |
|                                                                                                                                       |                             |                      | Yes                             | No                        |  |
| Org. code                                                                                                                             | Organization                |                      |                                 |                           |  |
| Country                                                                                                                               |                             |                      |                                 |                           |  |
| Degree type                                                                                                                           | Degree name                 | Start date           | Expected date                   | Awarded date              |  |
|                                                                                                                                       |                             | (yyyy/mm)            | (yyyy/mm)                       | (yyyy/mm)                 |  |
| Disc. code                                                                                                                            | Discipline                  |                      | Did SSHRC su                    |                           |  |
|                                                                                                                                       |                             |                      | you to get this                 | No No                     |  |
| Org. code                                                                                                                             | Organization                |                      |                                 |                           |  |
| Country                                                                                                                               |                             |                      |                                 |                           |  |

Canada CV



Family name, Given name
Fels, Deborah

## **Credentials**

List up to 6 licences, professional designations, awards and distinctions you have received and feel would be the most pertinent to the adjudication of your application. List them in reverse chronological order, based on the year awarded.

|                |                            | <u> </u>          |                      |      |
|----------------|----------------------------|-------------------|----------------------|------|
| Category       | Name                       | Source or Country | Duration<br>(Months) |      |
| Academic Prize | Sarwan Sahota Award        | CANADA            |                      | \$0  |
|                |                            |                   |                      | 2009 |
| Non-Academic   | Top 40 Under 40            | CANADA            |                      |      |
| Prize          |                            |                   |                      | 2001 |
| Non-Academic   | Global Bangemann Challenge | SWEDEN            |                      |      |
| Prize          | Award in IT in All Form    |                   |                      | 1999 |
| Non-Academic   | International Patent       | CANADA            |                      |      |
| Prize          |                            |                   |                      | 1999 |
| Non-Academic   | Technology in Government   | CANADA            |                      |      |
| Prize          | 1999 Distinction Award     |                   |                      | 1999 |
| Professional   | Professional Engineer      | CANADA            |                      |      |
| Designation    |                            |                   |                      | 1990 |

## **Research Expertise**

The information provided in this section refers to your own research expertise, not to a research proposal.

#### **Keywords**

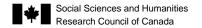
List keywords that best describe your areas of research expertise. Separate keywords with a semicolon.

Assistive technology; Accessible media and entertainment; Human-computer interaction;

#### **Disciplines**

Indicate and rank up to 5 disciplines that best correspond to your research interests. Duplicate entries are not permitted.

| Rank | Code  | Discipline                                               | If Other, specify |
|------|-------|----------------------------------------------------------|-------------------|
| 1    | 80200 | Computer and Information Science and Operations Research |                   |
| 2    | 80800 | Engineering                                              |                   |
| 3    | 99999 | Other                                                    | Human Factors     |
| 4    |       |                                                          |                   |
| 5    |       |                                                          |                   |

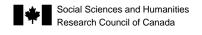


| Family name, Given name |  |
|-------------------------|--|
| Fels. Deborah           |  |

| Funded                                                                                                                                                                                                                                  | Funded Research                                        |                            |                  |                        |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------|------------------|------------------------|-------------|
| List up to 8 grants or contracts you have received from SSHRC or other sources. List them in reverse chronological order, based on the year awarded. If you are not the applicant (principal investigator), specify that persons' name. |                                                        |                            |                  |                        |             |
| Org. code                                                                                                                                                                                                                               | (1000)                                                 |                            |                  | otal amount<br>(CAN\$) |             |
| 3010325                                                                                                                                                                                                                                 | Social Sciences and Humanities R                       | Research Council of Canada | 2012             | \$196,000              |             |
| Role                                                                                                                                                                                                                                    | Co-applicant                                           |                            | Completion statu | us 🔲                   | Complete    |
| Project title                                                                                                                                                                                                                           | Intimate Interfaces                                    |                            |                  |                        |             |
| Applicant's f                                                                                                                                                                                                                           | amily name                                             | Applicant's given name     |                  |                        | Initials    |
| Gurevich                                                                                                                                                                                                                                |                                                        | Maria                      |                  |                        |             |
| Org. code                                                                                                                                                                                                                               | Full name of funding organization                      |                            | Year awarded     | To                     | otal amount |
| 1                                                                                                                                                                                                                                       | NIH Small Business Initiative                          |                            | (yyyy)<br>2011   | ¢.                     | (CAN\$)     |
| 1<br>Role                                                                                                                                                                                                                               |                                                        |                            | 2011             |                        | 350,000     |
|                                                                                                                                                                                                                                         | Co-applicant                                           |                            | Completion statu | us                     | Complete    |
| Project title                                                                                                                                                                                                                           | Terptube                                               |                            |                  |                        |             |
| Applicant's f                                                                                                                                                                                                                           | amily name                                             | Applicant's given name     |                  |                        | Initials    |
| Roush                                                                                                                                                                                                                                   |                                                        | Daniel                     |                  |                        |             |
| Org. code Full name of funding organization                                                                                                                                                                                             |                                                        |                            | Year awarded     | To                     | otal amount |
| 1                                                                                                                                                                                                                                       | National Institute of Health                           |                            | (yyyy)<br>2010   | ¢.                     | (CAN\$)     |
| 1                                                                                                                                                                                                                                       |                                                        |                            | 2010             |                        | 300,000     |
| Role                                                                                                                                                                                                                                    | Co-applicant                                           |                            | Completion statu | us                     | Complete    |
| Project title                                                                                                                                                                                                                           | Crowd-sourced audio description                        |                            |                  |                        |             |
| Applicant's f                                                                                                                                                                                                                           | amily name                                             | Applicant's given name     |                  |                        | Initials    |
| Miele                                                                                                                                                                                                                                   |                                                        | Joshua                     |                  |                        |             |
| Org. code                                                                                                                                                                                                                               | Full name of funding organization                      |                            | Year awarded     | To                     | otal amount |
| Natural Sciences and Engineering R 3010316 Canada                                                                                                                                                                                       |                                                        | Research Council of        | (yyyy)<br>2010   | φ.                     | (CAN\$)     |
|                                                                                                                                                                                                                                         |                                                        |                            | 2010             |                        | 280,000     |
|                                                                                                                                                                                                                                         | Applicant                                              | 1                          | Completion statu | us                     | Complete    |
| Project title                                                                                                                                                                                                                           | Project title Discovery Grant + Accelerator supplement |                            |                  |                        |             |
| Applicant's family name  Applicant's given name  In                                                                                                                                                                                     |                                                        |                            | Initials         |                        |             |
|                                                                                                                                                                                                                                         |                                                        |                            |                  |                        |             |

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| Family name, Given name |
|-------------------------|
| Fels, Deborah           |

| Funded Research (cont'd)                                 |                                   |                                |                     |        |                     |
|----------------------------------------------------------|-----------------------------------|--------------------------------|---------------------|--------|---------------------|
|                                                          |                                   |                                |                     |        |                     |
|                                                          |                                   |                                |                     |        | al amount<br>CAN\$) |
| 3010325                                                  | Social Sciences and Humanities is | research Council of Canada     | 2009                | \$4    | 40,000              |
| Role                                                     | Applicant                         |                                | Completion statu    | ıs 🔲 C | Complete            |
| Project title                                            | Developing a framework for vibro  | tactile composition and perfor | rmance              |        |                     |
|                                                          |                                   |                                |                     |        |                     |
| Applicant's f                                            | amily name                        | Applicant's given name         |                     | 1      | nitials             |
|                                                          |                                   |                                |                     |        |                     |
| Org. code                                                | Full name of funding organization |                                | Year awarded        |        | al amount           |
| 1                                                        | National Centre of Excellence     |                                | 2009                |        | CAN\$)              |
| 1<br>Role                                                | Callaha matan                     |                                |                     |        | 000,000             |
| Project title                                            | CDAND                             |                                | Completion statu    | ıs 🔲 C | Complete            |
| Project title                                            | GRAND                             |                                |                     |        |                     |
|                                                          |                                   |                                |                     |        |                     |
| Applicant's family name Applicant's given name           |                                   | l I                            | nitials             |        |                     |
| Booth Kelly                                              |                                   |                                |                     |        |                     |
| Org. code Full name of funding organization Year awarded |                                   |                                | al amount<br>CAN\$) |        |                     |
| 1                                                        | Canada Foundation for Innovation  | 1                              | 2009                |        | ,000,000            |
| 1<br>Role                                                |                                   |                                |                     |        | ,                   |
|                                                          | Co-applicant                      |                                | Completion statu    | ıs 🔲 C | Complete            |
| Project title                                            | Inclusive design institute        |                                |                     |        |                     |
|                                                          |                                   |                                |                     |        |                     |
| Applicant's f                                            | amily name                        | Applicant's given name         |                     | 1      | nitials             |
| Treviran                                                 | ıs                                | Jutta                          |                     |        |                     |
| Org. code                                                | Full name of funding organization |                                | Year awarded        |        | al amount<br>CAN\$) |
| 3010325                                                  | Social Sciences and Humanities R  | Research Council of Canada     | (уууу)              |        |                     |
| 2007   \$\psi_1\$                                        |                                   |                                | 000,000             |        |                     |
|                                                          | Applicant                         |                                | Completion statu    | ıs 🔼 C | Complete            |
| Project title                                            | Accessible Entertainment          |                                |                     |        |                     |
|                                                          |                                   |                                |                     |        |                     |
| Applicant's f                                            | amily name                        | Applicant's given name         |                     | T      | nitials             |
|                                                          |                                   |                                |                     |        |                     |

Personal information will be stored in the Personal Information Bank for the appropriate program.

**Canadä** 

Web CV

# **Research Contributions (2007-2013)**

## A. Selected refereed contributions (students indicated in bold)

## Book Chapter

| ſ | 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.                                                                             |

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

| Jour  | nal 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. <i>The International Journal</i>                                                                                      |
|       | 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.                                                                                                       |
|       | <i>Telecommunications Journal of Australia</i> . Awarded Telstra-TJA Christopher Newell Prize - 2 <sup>nd</sup> place.                                                                         |
|       | 61(2). 29.1-29.13. http://tja.org.au.                                                                                                                                                          |
| R     | Karam, M., <b>Branje</b> , C. Udo, JP, Russo, R., Fels, D.I. (2010). Evaluating a tactile display in a public                                                                                  |
| To di | setting. Journal of Usability Studies. 5(4). 132-146.                                                                                                                                          |
| R*    | Udo, J.P. & Fels, D.I. (2010). Horatio audio-describes Shakespeare's Hamlet. <i>British Journal of</i>                                                                                         |
| D.*   | Disability. 28(2). 139-156.                                                                                                                                                                    |
| R*    | Udo, J.P. & Fels, D.I. (2010). Universal design on stage: Live audio description for theatrical                                                                                                |
| R*    | performances. <i>Perspectives: Studies in Translatology</i> . 18 (3). 189-203<br>Udo, JP, Fels, D.I. (2010). Refashioning fashion. <i>Universal Access and the Information Society</i> . 9(1). |
| I K   | 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.                                                                                                                 |

# **Deborah I. Fels**

| 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. <i>International Journal of</i>       |
|   | 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. <i>International J. of Social and Humanistic Computing</i> . 1(1). 108 – 122.         |
| R | <b>Lee, D.G., Udo, JP.,</b> Fels, D.I. (2007). Enhanced captions. <i>Computers and Entertainment</i> . 5(2). |

# $\textbf{B. Other refereed contributions - selected listing (students \ listed \ in \ bold)}$

| $\sim$ | c      | 1.       |     |
|--------|--------|----------|-----|
| Ont    | nronco | proceedi | nac |
| COIII  | erence | DIOCEEUI | uzs |
|        |        |          |     |

| Con | gerence proceedings                                                                                                                          |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------|
| R*  | <b>Pouris, M.</b> & Fels, D. I. (2012). Creating an entertaining and informative music visualization. <i>ICCHP 2012</i> . 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. <i>IEEE Haptics</i> . Vancouver. Pp. 509-515.                                                 |
| R   | <b>Bajko, R.</b> , & Fels, D.I. (2011). Mobile telephone Usage and Perception During Group Meetings.                                         |
| 1   | CONISAR. North Carolina. Winner, Meritorious PhD paper award                                                                                 |
| R   | <b>Hibbard, E.,</b> Fels, D.I. (2011). The vlogging phenomena: A Deaf perspective. <i>ASSETS 2011</i> . Dundee.                              |
| 1   | 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. <i>ICCHP</i>                                  |
|     | 2010. Vienna. Pp. 247-254.                                                                                                                   |
| R   | Karam, M., <b>Branje</b> , C., Nespoli, G. Thompson, N., Russo, F.A., Fels, D.I. (2010) The Emoti-Chair –                                    |
|     | An interactive cross-modal tactile music display. <i>CHI2010</i> . Atlanta. Pp. 3069-3074.                                                   |
| R   | Karam, M., <b>Branje</b> , C., Russo, F., Fels, D.I. (2010). Vibrotactile display of music on the human back.                                |
| D.* | 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? <i>IEEE Toronto International Conference – Science</i>                                     |
| D*  | Technology for Humanity. Toronto. Pp. 951-956.                                                                                               |
| R*  | Fourney, D., & Fels, D.I. (2009). Creating access to music through visualization. <i>IEEE Toronto</i>                                        |
| D   | 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., <b>Maksimowski, M.</b> , Karam, M. and D. I. Fels. D.I. (2009). Vibrotactile discrimination of                                  |
| K   | musical timbre. Society for Music Perception and Cognition. Windsor.                                                                         |
| R   | Fels, D.I., <b>Gerdzhev, M., Hibbard, E.</b> , Goodrum, A., & Richards, J. (2009). Sign language online with                                 |
| IX  | Signlink Studio 2.0. <i>HCI International</i> . San Diego.                                                                                   |
| R*  | Vy, Q., & Fels, D.I., (2009). Who's Saying What? Using Avatars for Speaker Identification. <i>Interact</i>                                   |
| ``  | 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. <i>ICCHP</i> 2008. Linz. pp. 609-616.                                                                                         |
| R   | Karam, M., Branje, C., Price, E., Russo, F., & Fels, D.I. (2008). Towards A Model Human Cochlea:                                             |
|     |                                                                                                                                              |

#### Deborah I. Fels

|   | Sensory substitution for crossmodal audio-tactile displays. <i>Proceedings of Graphics Interface</i> 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).                                       |  |  |
|---|-------------------------------------------------------------------------------------------------------------|--|--|
| Ι | <u>Invited seminar</u> : Inclusive Design. University of Surrey, Faculty of Management. Oct. 2011           |  |  |
|   | <u>Invited demonstration and presentation</u> : 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. <u>Invited Presentation</u> 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 | <b>Branje, CJ</b> ., Nespoli, G., Russo, F., Fels, D.I. The horror of vibrotactile stimulation. <i>ACM</i> |  |  |  |  |
|          | 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. <i>British</i>          |  |  |  |  |
|          | 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 | Emoti-chair: Exhibit at Ontario Science Centre. Weston Family Ideas Centre. Sept. 08-Jan.09. |  |  |
| & concert    | Live <u>concert</u> 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.

## 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 2<sup>nd</sup> 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.