Appendix A

Permissions

This dissertation reuses materials from eight of my previous publications. All the figures/screenshots were generated from softwares written by myself. At the beginning of each chapter, in which the published materials are reused, a footnote is presented to indicate the reused materials and cite the original paper(s). In the caption of each figure, which contains reused materials, the copyright of respective publisher is indicated. The permissions to reuse the published materials are presented in this document as follows.
This permission is for Figure 1.2. The images were from “[122] M. Wang, J. Tao, C. Wang, S. C.-K., and S. H. Kim. FlowVisual: Design and evaluation of a visualization tool for teaching 2D flow field concepts. In Proceedings of American Society for Engineering Education Annual Conference, Atlanta, GA, 2013.”. An editor of ASEE confirmed that the materials could be reused, given that copyright of ASEE was indicated and the original paper was cited. The email is attached (next page):
Jun Tao <junta@mtu.edu>

copyright and republication

Mark Matthews <M.Matthews@asee.org>
To: Jun Tao <junta@mtu.edu>

Wed, Nov 18, 2015 at 1:37 PM

Jun, You are welcome to use the images provided you indicate that ASEE holds the copyright give the year and location of the conference. Thank you for your inquiry and good luck with your dissertation.

Best wishes,

Mark

Mark Matthews
Editorial Director
American Society for Engineering Education
Inspiring Innovation, Advancing Research, Enhancing Education.
1818 N St, NW, Suite 600
Washington DC 20036
202-331-3526

Jun Tao [mailto:junta@mtu.edu]
Sent: Wednesday, November 18, 2015 9:16 AM
To: editorial@asee.org
Subject: copyright and republication

Dear Sir/Madam,

I would like to use several images of a paper published at ASEE conference in my dissertation. I am the second author of that paper. I want to confirm with you that this is fine, as long as the source and ASEE copyright is indicated. Please also let me know if you have any concerns.

Thanks,

Jun
This permission is for Figure 1.7, Figure 4.1, Figure 4.2, Figure 4.3, Figure 4.4, Figure 4.5, Figure 4.6, Figure 4.7, Figure 4.8, Figure 4.9, Figure 4.10, and Chapter 4. The materials were from “[105] J. Tao, C. Wang, C.-K. Shene, and S. H. Kim. A deformation framework for focus+context flow visualization. *IEEE Transactions on Visualization and Computer Graphics*, 20(1):4255, 2014.”. IEEE states that no permission is needed (next page):
A Deformation Framework for Focus+Context Flow Visualization
Jun Tao; Chaoli Wang; Ching-Kuang Shene; Seung Hyun Kim
Visualization and Computer Graphics, IEEE Transactions on
IEEE
Jan. 2014
Copyright © 2014, IEEE

Thesis / Dissertation Reuse

The IEEE does not require individuals working on a thesis to obtain a formal reuse license, however, you may print out this statement to be used as a permission grant:

Requirements to be followed when using any portion (e.g., figure, graph, table, or textual material) of an IEEE copyrighted paper in a thesis:

1) In the case of textual material (e.g., using short quotes or referring to the work within these papers) users must give full credit to the original source (author, paper, publication) followed by the IEEE copyright line © [Year of original publication] IEEE appear prominently with each reprinted figure and/or table.
2) If a substantial portion of the original paper is to be used, and if you are not the senior author, also obtain the senior author's approval.

Requirements to be followed when using an entire IEEE copyrighted paper in a thesis:

1) The following IEEE copyright/credit notice should be placed prominently in the references: © [year of original publication] IEEE. Reprinted, with permission, from [author names, paper title, IEEE publication title, and month/year of publication].
2) Only the accepted version of an IEEE copyrighted paper can be used when posting the paper or your thesis on-line.
3) In placing the thesis on the author's university website, please display the following message in a prominent place on the website: In reference to [IEEE copyrighted material which is used with permission in this thesis, the IEEE does not endorse any of [university/educational entity's name goes here]]'s products or services. Internal or personal use of this material is permitted. If interested in reprinting/republishing IEEE copyrighted material for advertising or promotional purposes or for creating new collective works for resale or redistribution, please go to http://www.ieee.org/publications_standards/publications/rights/rights_link.html to learn how to obtain a License from RightsLink.

If applicable, University Microfilms and/or ProQuest Library, or the Archives of Canada may supply single copies of the dissertation.
This permission is for Figure 3.1, Figure 3.2, Figure 3.3, Figure 3.4, Figure 3.5, Figure 3.6, Figure 3.7, Figure 3.8, and Chapter 3. The materials were from “[103] J. Tao, J. Ma, C. Wang, and C.-K. Shene. A unified approach to streamline selection and viewpoint selection for 3D flow visualization. *IEEE Transactions on Visualization and Computer Graphics*, 19(3):393406, 2013.”. IEEE states that no permission is needed (next page):
This permission is for Figure 5.1, Figure 5.2, Figure 5.3, Figure 5.4, Figure 5.6, Figure 5.8, Figure 5.9, Figure 5.10 and Chapter 5. The materials were from “[104] J. Tao, C. Wang, and C.-K. Shene. Flowstring: Partial streamline matching using shape invariant similarity measure for exploratory flow visualization. In Proceedings of IEEE Pacific Visualization Symposium, pages 916, Yokohama, Japan, 2014.”. IEEE states that no permission is needed (next page):
Thesis / Dissertation Reuse

The IEEE does not require individuals working on a thesis to obtain a formal reuse license, however, you may print out this statement to be used as a permission grant:

Requirements to be followed when using any portion (e.g., figure, graph, table, or textual material) of an IEEE copyrighted paper in a thesis:

1) In the case of textual material (e.g., using short quotes or referring to the work within these papers) users must give full credit to the original source (author, paper, publication) followed by the IEEE copyright line © 2011 IEEE.
2) In the case of illustrations or tabular material, we require that the copyright line © [Year of original publication] IEEE appear prominently with each reprinted figure and/or table.
3) If a substantial portion of the original paper is to be used, and if you are not the senior author, also obtain the senior author's approval.

Requirements to be followed when using an entire IEEE copyrighted paper in a thesis:

1) The following IEEE copyright/credit notice should be placed prominently in the references: © [year of original publication] IEEE. Reprinted, with permission, from [author names, paper title, IEEE publication title, and month/year of publication]
2) Only the accepted version of an IEEE copyrighted paper can be used when posting the paper or your thesis online.
3) In placing the thesis on the author's university website, please display the following message in a prominent place on the website: In reference to IEEE copyrighted material which is used with permission in this thesis, the IEEE does not endorse any of [university/educational entity's name goes here]'s products or services. Internal or personal use of this material is permitted. If interested in reprinting/publishing IEEE copyrighted material for advertising or promotional purposes or for creating new collective works for resale or redistribution, please go to http://www.ieee.org/publications_standards/publications/rights/rights_link.html to learn how to obtain a License from RightsLink.

If applicable, University Microfilms and/or ProQuest Library, or the Archives of Canada may supply single copies of the dissertation.
This permission is for Figure 5.5, Figure 5.7, Figure 5.11, Figure 5.12, Figure 5.13, Figure 5.14, and Chapter 5. The materials were from “[106] J. Tao, C. Wang, C.-K. Shene, and R. A. Shaw. A vocabulary approach to partial streamline matching and exploratory flow visualization. *IEEE Transactions on Visualization and Computer Graphics*, 2016. Accepted.”. IEEE states that no permission is needed (next page):
Title: A Vocabulary Approach to Partial Streamline Matching and Exploratory Flow Visualization
Author: Tao, J.; Wang, C.; Shene, Ching-Kuang; Shaw, R.A.
Publication: Visualization and Computer Graphics, IEEE Transactions on
Publisher: IEEE
Copyright © 1998, IEEE

Thesis / Dissertation Reuse

The IEEE does not require individuals working on a thesis to obtain a formal reuse license, however, you may print out this statement to be used as a permission grant:

Requirements to be followed when using any portion (e.g., figure, graph, table, or textual material) of an IEEE copyrighted paper in a thesis:

1) In the case of textual material (e.g., using short quotes or referring to the work within these papers) users must give full credit to the original source (author, paper, publication) followed by the IEEE copyright line © 2011 IEEE.

2) In the case of illustrations or tabular material, we require that the copyright line © [Year of original publication] IEEE appear prominently with each reprinted figure and/or table.
3) If a substantial portion of the original paper is to be used, and if you are not the senior author, also obtain the senior author’s approval.

Requirements to be followed when using an entire IEEE copyrighted paper in a thesis:

1) The following IEEE copyright credit notice should be placed prominently in the references: © [year of original publication] IEEE, Reprinted, with permission, from [author names, paper title, IEEE publication title, and month/year of publication].
2) Only the accepted version of an IEEE copyrighted paper can be used when posting the paper or your thesis on-line.
3) In placing the thesis on the author’s university website, please display the following message in a prominent place on the website: In reference to IEEE copyrighted material which is used with permission in this thesis, the IEEE does not endorse any of [university/educational entity’s name goes here]’s products or services. Internal or personal use of this material is permitted. If interested in reprinting/republishing IEEE copyrighted material for advertising or promotional purposes or for creating new collective works for resale or redistribution, please go to http://www.ieee.org/publications_standards/publications/rights/rights_link.html to learn how to obtain a License from RightsLink.

If applicable, University Microfilms and/or ProQuest Library, or the Archives of Canada may supply single copies of the dissertation.
This permission is for Figure 7.1, Figure 7.2, Figure 7.3, Figure 7.4, Figure 7.5, Figure 7.6, Figure 7.7 and Chapter 7. The materials were from “[100] J. Tao, J. Ma, M. Keranen, J. Mayo, and C.-K. Shene. ECvisual: a visualization tool for elliptic curve based ciphers. In *Proceedings of the ACM Technical Symposium on Computer Science Education*, pages 571576, 2012. http://doi.acm.org/10.1145/2157136.2157298.”. Note that the doi information is included in the reference. A free license is obtained from ACM (next three pages):
This is a License Agreement between Jun Tao ("You") and Association for Computing Machinery, Inc. ("Association for Computing Machinery, Inc.") provided by Copyright Clearance Center ("CCC"). The license consists of your order details, the terms and conditions provided by Association for Computing Machinery, Inc., and the payment terms and conditions.

**All payments must be made in full to CCC. For payment instructions, please see information listed at the bottom of this form.**

<table>
<thead>
<tr>
<th>License Number</th>
<th>3766691470101</th>
</tr>
</thead>
<tbody>
<tr>
<td>License date</td>
<td>Dec 12, 2015</td>
</tr>
<tr>
<td>Licensed content publisher</td>
<td>Association for Computing Machinery, Inc.</td>
</tr>
<tr>
<td>Licensed content publication</td>
<td>Proceedings of the 43rd ACM technical symposium on Computer Science Education</td>
</tr>
<tr>
<td>Licensed content title</td>
<td>ECVisual: a visualization tool for elliptic curve based ciphers</td>
</tr>
<tr>
<td>Licensed content author</td>
<td>Jun Tao, et al</td>
</tr>
<tr>
<td>Licensed content date</td>
<td>Feb 29, 2012</td>
</tr>
<tr>
<td>Type of Use</td>
<td>Thesis/Dissertation</td>
</tr>
<tr>
<td>Requestor type</td>
<td>Author of this ACM article</td>
</tr>
<tr>
<td>Is reuse in the author's own new work?</td>
<td>No</td>
</tr>
<tr>
<td>Format</td>
<td>Print and electronic</td>
</tr>
<tr>
<td>Portion</td>
<td>Excerpt (&gt; 250 words)</td>
</tr>
<tr>
<td>Will you be translating?</td>
<td>No</td>
</tr>
<tr>
<td>Order reference number</td>
<td>None</td>
</tr>
<tr>
<td>Title of your thesis/dissertation</td>
<td>ENABLING TECHNIQUES FOR EXPRESSION FLOW FIELD VISUALIZATION AND EXPLORATION</td>
</tr>
<tr>
<td>Expected completion date</td>
<td>Dec 2015</td>
</tr>
<tr>
<td>Estimated size (pages)</td>
<td>246</td>
</tr>
<tr>
<td>Billing Type</td>
<td>Invoice</td>
</tr>
<tr>
<td>Billing Address</td>
<td>Jun Tao</td>
</tr>
<tr>
<td></td>
<td>2007 Coachmans Trail</td>
</tr>
<tr>
<td></td>
<td>SOUTH BEND, IN 46637</td>
</tr>
<tr>
<td></td>
<td>United States</td>
</tr>
<tr>
<td></td>
<td>Attn: Jun Tao</td>
</tr>
<tr>
<td>Total</td>
<td>8.00 USD</td>
</tr>
</tbody>
</table>

**Terms and Conditions**

1. The publisher of this copyrighted material is Association for Computing Machinery, Inc. (ACM). By clicking "accept" in connection with completing this licensing transaction, you agree that the following terms and conditions apply to this transaction (along with the

https://dl100.copyright.com/CustomerAdmin/PUI.jsp?ref=8f59228-a225-4c95-ab46-40c0a5b1b3be
Billing and Payment terms and conditions established by Copyright Clearance Center, Inc. ("CCC"), at the time that you opened your Rightslink account and that are available at any time at.

2. ACM reserves all rights not specifically granted in the combination of (i) the license details provided by you and accepted in the course of this licensing transaction, (ii) these terms and conditions and (iii) CCC's Billing and Payment terms and conditions.

3. ACM hereby grants to licensee a non-exclusive license to use or republish this ACM-copyrighted material in secondary works (especially for commercial distribution) with the stipulation that consent of the lead author has been obtained independently. Unless otherwise stipulated in a license, grants are for one-time use in a single edition of the work, only with a maximum distribution equal to the number that you identified in the licensing process. Any additional form of republication must be specified according to the terms included at the time of licensing.

*Please note that ACM cannot grant republication or distribution licenses for embedded third-party material. You must confirm the ownership of figures, drawings and artwork prior to use.

4. Any form of republication or redistribution must be used within 180 days from the date stated on the license and any electronic posting is limited to a period of six months unless an extended term is selected during the licensing process. Separate subsidiary and subsequent republication licenses must be purchased to redistribute copyrighted material on an extranet. These licenses may be exercised anywhere in the world.

5. Licensee may not alter or modify the material in any manner (except that you may use, within the scope of the license granted, one or more excerpts from the copyrighted material, provided that the process of excerpting does not alter the meaning of the material or in any way reflect negatively on the publisher or any writer of the material).

6. Licensee must include the following copyright and permission notice in connection with any reproduction of the licensed material: "[Citation] © YEAR Association for Computing Machinery, Inc. Reprinted by permission." Include the article DOI as a link to the definitive version in the ACM Digital Library. Example: Charles, L. "How to Improve Digital Rights Management," Communications of the ACM, Vol. 51:12, © 2008 ACM, Inc. http://doi.acm.org/10.1145/nnnnnn.nnnnn (where nnnnn.nnnnn is replaced by the actual number).

7. Translation of the material in any language requires an explicit license identified during the licensing process. Due to the error-prone nature of language translations, Licensee must include the following copyright and permission notice and disclaimer in connection with any reproduction of the licensed material in translation: "This translation is a derivative of ACM-copyrighted material. ACM did not prepare this translation and does not guarantee that it is an accurate copy of the originally published work. The original intellectual property contained in this work remains the property of ACM."

8. You may exercise the rights licensed immediately upon issuance of the license at the end of the licensing transaction, provided that you have disclosed complete and accurate details of your proposed use. No license is finally effective unless and until full payment is received from you (either by CCC or ACM) as provided in CCC's Billing and Payment terms and conditions.

9. If full payment is not received within 90 days from the grant of license transaction, then any license preliminarily granted shall be deemed automatically revoked and shall be void as if never granted. Further, in the event that you breach any of these terms and conditions or any of CCC's Billing and Payment terms and conditions, the license is automatically revoked and shall be void as if never granted.

10. Use of materials as described in a revoked license, as well as any use of the materials beyond the scope of an unretracted license, may constitute copyright infringement and publisher reserves the right to take any and all action to protect its copyright in the materials.

11. ACM makes no representations or warranties with respect to the licensed material and adopts on its own behalf the limitations and disclaimers established by CCC on its behalf in...
its Billing and Payment terms and conditions for this licensing transaction.
12. You hereby indemnify and agree to hold harmless ACM and CCC, and their respective
officers, directors, employees and agents, from and against any and all claims arising out of
your use of the licensed material other than as specifically authorized pursuant to this
license.
13. This license is personal to the requestor and may not be sublicensed, assigned, or
transferred by you to any other person without publisher's written permission.
14. This license may not be amended except in a writing signed by both parties (or, in the
case of ACM, by CCC on its behalf).
15. ACM hereby objects to any terms contained in any purchase order, acknowledgment,
check endorsement or other writing prepared by you, which terms are inconsistent with these
terms and conditions or CCC's Billing and Payment terms and conditions. These terms and
conditions, together with CCC's Billing and Payment terms and conditions (which are
incorporated herein), comprise the entire agreement between you and ACM (and CCC)
concerning this licensing transaction. In the event of any conflict between your obligations
established by these terms and conditions and those established by CCC's Billing and
Payment terms and conditions, these terms and conditions shall control.
16. This license transaction shall be governed by and construed in accordance with the laws
of New York State. You hereby agree to submit to the jurisdiction of the federal and state
courts located in New York for purposes of resolving any disputes that may arise in
connection with this licensing transaction.
17. There are additional terms and conditions, established by Copyright Clearance Center,
Inc. ("CCC") as the administrator of this licensing service that relate to billing and payment
for licenses provided through this service. Those terms and conditions apply to each
transaction as if they were restated here. As a user of this service, you agreed to those terms
and conditions at the time that you established your account, and you may see them again at
any time at http://myaccount.copyright.com
18. Thesis/Dissertation: This type of use requires only the minimum administrative fee. It is
not a fee for permission. Further reuse of ACM content, by ProQuest/UMI or other
document delivery providers, or in republication requires a separate permission license and
fee. Commercial resellers of your dissertation containing this article must acquire a separate
license.
Special Terms:

You will be invoiced within 48 hours of this transaction date. You may pay your invoice
by credit card upon receipt of the invoice for this transaction. Please follow instructions
provided at that time.
To pay for this transaction now; please remit a copy of this document along with your
payment. Payment should be in the form of a check or money order referencing your
account number and this invoice number RLNX501803585.

Make payments to "COPYRIGHT CLEARANCE CENTER" and send to:

Copyright Clearance Center
Dept 001
P.O. Box 843006
Boston, MA 02284-3006
Please disregard electronic and mailed copies if you remit payment in advance

Questions? customercare@copyright.com or +1-855-239-3415 (toll free in the US) or
+1-978-646-2777.
This permission is for Figure 7.10, Figure 7.11, Figure 7.12 and Chapter 7. The materials were from “[102] J. Tao, J. Ma, J. Mayo, C.-K. Shene, and M. Keranen. DESvisual: a visualization tool for the DES cipher. Journal of Computing Sciences in Colleges, 27(1):8189, 2011.”. An editor of Journal of Computing Science in Colleges confirmed that the materials could be reused, given that copyright of CSCC was indicated and the original paper was cited. The email is attached (next page):
Hi Jun,

Yes, -- the form that you signed indicates exactly that --

We do want to see the reference to CCSC -- but we also want to see your publication disseminated as widely as possible!

Best regards,

John Meinke

---

Hi Dr. Meinke,

Our graduate school ask me to provide a document indicating that I had the permission to reuse the material (your email confirmation will be good). Could you please send me an email confirming that I only need to indicate that CCSC holds the copyright and cite the original paper, and no other permission document is needed? Thank you very much for your help.

Best wishes,

Jun

On Wed, Nov 18, 2015 at 11:24 AM, Jun Tao <junt@mtu.edu> wrote:

Hi Dr. Meinke,
This permission is for Figure 7.13, Figure 7.14, Figure 7.15, Figure 7.16, Figure 7.17, and Chapter 7. The materials were from “[101] J. Tao, J. Ma, M. Keranen, J. Mayo, C.-K. Shene, and C. Wang. RSAvisual: A visualization tool for the RSA cipher. In Proceedings of ACM Technical Symposium on Computer Science Education, pages 635640, Atlanta, GA, 2014. http://doi.acm.org/10.1145/2538862.2538891.”. Note that the doi information is included in the reference. A free license is obtained from ACM (next three pages):
ASSOCIATION FOR COMPUTING MACHINERY, INC. LICENSE TERMS AND CONDITIONS

Dec 12, 2015

This is a License Agreement between Jun Tao ("You") and Association for Computing Machinery, Inc. ("Association for Computing Machinery, Inc.") provided by Copyright Clearance Center ("CCC"). The license consists of your order details, the terms and conditions provided by Association for Computing Machinery, Inc., and the payment terms and conditions.

All payments must be made in full to CCC. For payment instructions, please see information listed at the bottom of this form.

<table>
<thead>
<tr>
<th>License Number</th>
<th>3766700212205</th>
</tr>
</thead>
<tbody>
<tr>
<td>License date</td>
<td>Dec 12, 2015</td>
</tr>
<tr>
<td>Licensed content publisher</td>
<td>Association for Computing Machinery, Inc.</td>
</tr>
<tr>
<td>Licensed content publication</td>
<td>Proceedings of the 45th ACM technical symposium on Computer science education</td>
</tr>
<tr>
<td>Licensed content title</td>
<td>RSAvisual: a visualization tool for the RSA cipher</td>
</tr>
<tr>
<td>Licensed content author</td>
<td>Jun Tao, et al</td>
</tr>
<tr>
<td>Licensed content date</td>
<td>Mar 5, 2014</td>
</tr>
<tr>
<td>Type of Use</td>
<td>Thesis/Dissertation</td>
</tr>
<tr>
<td>Requestor type</td>
<td>Author of this ACM article</td>
</tr>
<tr>
<td>Is reuse in the author’s own new work?</td>
<td>No</td>
</tr>
<tr>
<td>Format</td>
<td>Print and electronic</td>
</tr>
<tr>
<td>Portion</td>
<td>Excerpt (&gt; 250 words)</td>
</tr>
<tr>
<td>Will you be translating?</td>
<td>No</td>
</tr>
<tr>
<td>Order reference number</td>
<td>None</td>
</tr>
<tr>
<td>Title of your thesis/dissertation</td>
<td>ENABLING TECHNIQUES FOR EXPRESSIVE FLOW FIELD VISUALIZATION AND EXPLORATION</td>
</tr>
<tr>
<td>Expected completion date</td>
<td>Dec 2015</td>
</tr>
<tr>
<td>Estimated size (pages)</td>
<td>246</td>
</tr>
<tr>
<td>Billing Type</td>
<td>Invoice</td>
</tr>
<tr>
<td>Billing Address</td>
<td>Jun Tao</td>
</tr>
<tr>
<td></td>
<td>2007 Coachmans Trail</td>
</tr>
<tr>
<td></td>
<td>SOUTH BEND, IN 46637</td>
</tr>
<tr>
<td></td>
<td>United States</td>
</tr>
<tr>
<td></td>
<td>Attn: Jun Tao</td>
</tr>
<tr>
<td>Total</td>
<td>8.00 USD</td>
</tr>
</tbody>
</table>

Terms and Conditions

Rightslink Terms and Conditions for ACM Material

1. The publisher of this copyrighted material is Association for Computing Machinery, Inc. (ACM). By clicking "accept" in connection with completing this licensing transaction, you agree that the following terms and conditions apply to this transaction (along with the

https://s1000.copyright.com/CustomerAdmin/PUI.jsp?ref=bc986b4-8f976-4bdc-ad6b-2215a00b4091

1/3
Billing and Payment terms and conditions established by Copyright Clearance Center, Inc. ("CCC"), at the time that you opened your Rightlink account and that are available at any time at.

2. ACM reserves all rights not specifically granted in the combination of (i) the license details provided by you and accepted in the course of this licensing transaction, (ii) these terms and conditions and (iii) CCC's Billing and Payment terms and conditions.

3. ACM hereby grants to licensee a non-exclusive license to use or republish this ACM-copyrighted material* in secondary works (especially for commercial distribution) with the stipulation that consent of the lead author has been obtained independently. Unless otherwise stipulated in a license, grants are for one-time use in a single edition of the work, only with a maximum distribution equal to the number that you identified in the licensing process. Any additional form of republication must be specified according to the terms included at the time of licensing.

*Please note that ACM cannot grant republication or distribution licenses for embedded third-party material. You must confirm the ownership of figures, drawings and artwork prior to use.

4. Any form of republication or redistribution must be used within 180 days from the date stated on the license and any electronic posting is limited to a period of six months unless an extended term is selected during the licensing process. Separate subsidiary and subsequent republication licenses must be purchased to redistribute copyrighted material on an extranet. These licenses may be exercised anywhere in the world.

5. Licensee may not alter or modify the material in any manner (except that you may use, within the scope of the license granted, one or more excerpts from the copyrighted material, provided that the process of excerpting does not alter the meaning of the material or in any way reflect negatively on the publisher or any writer of the material).

6. Licensee must include the following copyright and permission notice in connection with any reproduction of the licensed material: "[Citation] © YEAR Association for Computing Machinery, Inc. Reprinted by permission." Include the article DOI as a link to the definitive version in the ACM Digital Library. Example: Charles, L. "How to Improve Digital Rights Management," Communications of the ACM, Vol. 51:12, © 2008 ACM, Inc. http://doi.acm.org/10.1145/nnnnn.mnnnn (where nnnnn.mnnnn is replaced by the actual number).

7. Translation of the material in any language requires an explicit license identified during the licensing process. Due to the error-prone nature of language translations, Licensee must include the following copyright and permission notice and disclaimer in connection with any reproduction of the licensed material in translation: "This translation is a derivative of ACM-copyrighted material. ACM did not prepare this translation and does not guarantee that it is an accurate copy of the originally published work. The original intellectual property contained in this work remains the property of ACM."

8. You may exercise the rights licensed immediately upon issuance of the license at the end of the licensing transaction, provided that you have disclosed complete and accurate details of your proposed use. No license is finally effective unless and until full payment is received from you (either by CCC or ACM) as provided in CCC's Billing and Payment terms and conditions.

9. If full payment is not received within 90 days from the grant of license transaction, then any license preliminarily granted shall be deemed automatically revoked and shall be void as if never granted. Further, in the event that you breach any of these terms and conditions or any of CCC's Billing and Payment terms and conditions, the license is automatically revoked and shall be void as if never granted.

10. Use of materials as described in a revoked license, as well as any use of the materials beyond the scope of an unrevoked license, may constitute copyright infringement and publisher reserves the right to take any and all action to protect its copyright in the materials.

11. ACM makes no representations or warranties with respect to the licensed material and adopts on its own behalf the limitations and disclaimers established by CCC on its behalf in
its Billing and Payment terms and conditions for this licensing transaction.
12. You hereby indemnify and agree to hold harmless ACM and CCC, and their respective
officers, directors, employees and agents, from and against any and all claims arising out of
your use of the licensed material other than as specifically authorized pursuant to this
license.
13. This license is personal to the requestor and may not be sublicensed, assigned, or
transferred by you to any other person without publisher's written permission.
14. This license may not be amended except in a writing signed by both parties (or, in the
case of ACM, by CCC on its behalf).
15. ACM hereby objects to any terms contained in any purchase order, acknowledgment,
check endorsement or other writing prepared by you, which terms are inconsistent with these
terms and conditions or CCC's Billing and Payment terms and conditions. These terms and
conditions, together with CCC's Billing and Payment terms and conditions (which are
incorporated herein), comprise the entire agreement between you and ACM (and CCC)
concerning this licensing transaction. In the event of any conflict between your obligations
established by these terms and conditions and those established by CCC's Billing and
Payment terms and conditions, these terms and conditions shall control.
16. This license transaction shall be governed by and construed in accordance with the
laws of New York State. You hereby agree to submit to the jurisdiction of the federal and state
courts located in New York for purposes of resolving any disputes that may arise in
connection with this licensing transaction.
17. There are additional terms and conditions, established by Copyright Clearance Center,
Inc. ("CCC") as the administrator of this licensing service that relate to billing and payment
for licenses provided through this service. Those terms and conditions apply to each
transaction as if they were restated here. As a user of this service, you agreed to those terms
and conditions at the time that you established your account, and you may see them again at
any time at http://myaccount.copyright.com
18. Thesis/Dissertation: This type of use requires only the minimum administrative fee. It is
not a fee for permission. Further reuse of ACM content, by ProQuest/UMI or other
document delivery providers, or in republication requires a separate permission license and
fee. Commercial resellers of your dissertation containing this article must acquire a separate
license.

Special Terms:

You will be invoiced within 48 hours of this transaction date. You may pay your invoice
by credit card upon receipt of the invoice for this transaction. Please follow instructions
provided at that time.
To pay for this transaction now; please remit a copy of this document along with your
payment. Payment should be in the form of a check or money order referencing your
account number and this invoice number RLINKS01803586.

Make payments to "COPYRIGHT CLEARANCE CENTER" and send to:

Copyright Clearance Center
Dept 001
P.O. Box 843006
Boston, MA 02284-3006

Please disregard electronic and mailed copies if you remit payment in advance.

Questions? customercare@copyright.com or +1-855-239-3415 (toll free in the US) or
+1-978-646-2777.