



Dijital Nesne Tanımlama Sistemi

Yaşar Tonta

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<http://yunus.hun.edu.tr/~tonta/tonta.html>



Bilgi Tanımlayıcılar

☞ **ISBN:** Uluslararası Standart Kitap Numarası

☞ **ISSN:** Uluslararası Standart Süreli Yayın Numarası

☞ **SICI:** Süreli Yayın Sayı ve Katkı Tanımlayıcı

☞ **BICI:** Kitap Sayı ve Katkı Tanımlayıcı

☞ **PII:** Yayıncı Numarası

☞ **ISWC:** Uluslararası Standart Eser Kodu

☞ **ISAN:** Uluslararası Standart Gör-İşit Numarası

☞ **ISRN:** Uluslararası Standart Rapor Numarası



Dijital Nesne Tanımlama

Amaç: “dijital içerikli nesnelerin global, kesin, kalıcı tanımlanması”



Temel Noktalar

- ➔ Tanımlayıcı sistemin kapsamı
- ➔ Yeni numara verme kuralları
- ➔ İşleyen numaralar
- ➔ Çözünürlük
- ➔ Kalıcılık



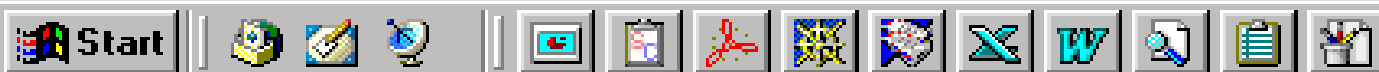
İlk Girişimler: URL

- ☞ URL: Tekbiçim Kaynak Buldurucu
 - <http://yunus.hun.edu.tr/~tonta/inet99.html>
 - belgenin bulunduğu yere gönderme yapıyor, içeriğe değil
 - iki farklı sitedeki aynı nesnenin farklı URL’leri var
 - kalıcı değil



Not Found

The requested URL /~tonta/doi.html was not found on this server.



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URL Yeterince Güvenilir Değil

	<i>http</i>	<i>gopher</i>	<i>ftp</i>	<i>Toplam</i>
<i>Elektronik dergi sayısı</i>	33	26	2	
<i>Listelenen URL sayısı</i>	81	36	29	148
<i>İşlevsel URL yüzdesi</i>	%67	%28	%31	%50



İlk Girişimler: PURL

☞ PURL: Kalıcı URL

<http://purl.oclc.org/OCLC/PURL/FAQ>

- Genel İnternet kaynakları için adlandırma ve çözümleme servisi
- “bugünün çözümü”
- daha kalıcı



İlk Girişimler: URN

☞ URN: Evrensel Kaynak Numarası

<hdl:cnri.dlib/february97-arms>

- IETF
- çözümleme servisi
- daha da kalıcı



DOI: Dijital Nesne Tanımlayıcı

“21. yüzyılın
ISBN
numarası”



DOI

☞ “Bir içerik parçasının tekil tanımlayıcısı

ve

☞ bu içeriğe dijital olarak erişmek için bir sistem”



DOI’nin Tarihçesi

- ➔ Amerikan Yayıncılar Birliği (AAP) ve Bowker’ın girişimiyle başladı
- ➔ Çevrimiçi telif hakkı koruma sistemi
- ➔ CNRI teknoloji partneri seçildi
- ➔ İlk gösteri Frankfurt Kitap Fuarında (1997) yapıldı
- ➔ Çalışmalar sürüyor



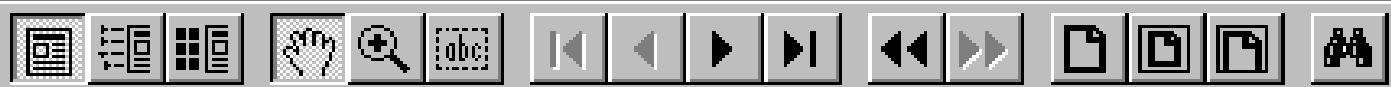
Temel DOI İsterleri I

- ➔ DOI numarasının “akılsız” olması
- ➔ Her tür içeriğin ve bu içeriğin belli türevlerinin kimliklenebilmesi ve tanımlanabilmesi
- ➔ Neyi tanımlıyoruz ki? (haklar, kopyalar, sürümler, parçalar, vs.)
- ➔ Her “çözünürlükteki” nesneye uygulanabilmesi (kitap, süreli yayın, makale, fotoğraf, tablo, paragraf, vs.)
- ➔ İçerik koruma sistemi olarak kullanılabilmesi



Temel DOI İsterleri II

- ☞ Finansal işlem sistemi olarak kullanılabilmesi
- ☞ Tekil maddelerin sayısı 10^{14} (100 trilyon)
- ☞ Erişim haklarını tanımlayabilmesi
- ☞ Eskiden “miras” kalan sistemleri (SICI, BICI, vs.) kucaklaması
- ☞ Kalıcı olması

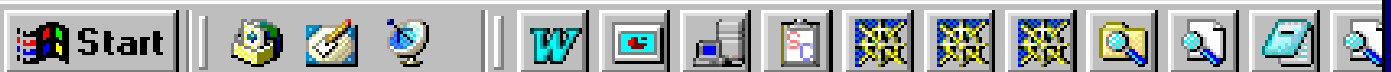


In Search of the Unicorn

The Digital Object Identifier from a User Perspective

Mark Bide

BNBRF Report 89



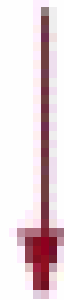
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DOI: Teknik Konular

- ☞ IETF URN çerçevesinde DOI no’su verilebilir
- ☞ **CNRI’s Handle System®’i kullanıyor**
 - **CNRI’s Handle System®** dijital nesnelere adlandırmak, bu adları depolamak, dijital nesnelere İnternet üzerindeki yerlerini belirlemek, bu nesnelere erişmek için kullanılan dağıtık ve ölçeklenebilir bir sistem
 - DOI, LC, NCSTRL, DTIC ve USIA CNRI’s Handle System’inin kullanıcıları arasında

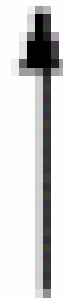
Directory



Registrar Prefix



10.1016/[SICL]\$1384107697000225



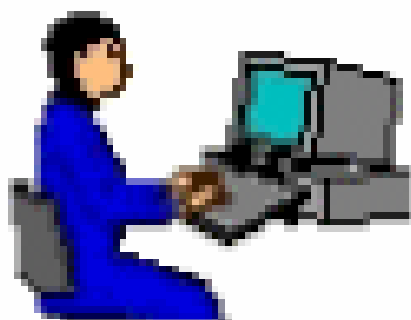
Item ID

Code (optional)

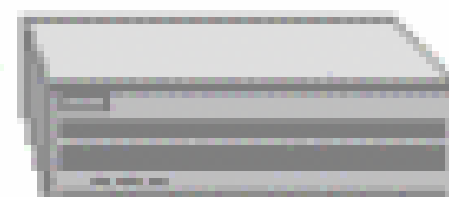
User at Web Browser

Giant Steps Publishing Co.
Web Server

4



Pure bus
Journal
Sept. 1997



1

Article contains URL with DOI:

<http://dx.doi.org/10.1346/ejournal-09-97>

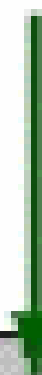
3

DOI Directory 10

2

DOI: [10.1346/ejournal-09-97](http://dx.doi.org/10.1346/ejournal-09-97)

URL: <http://www.giantsteps.com/ejournal/purchase?09-97>





DOI’nin Farklı Kullanımları

- ➔ bibliyografik denetim ve kaynak keşfetme
- ➔ elektronik içindekiler sayfası
- ➔ e-ticaret (haklarla ilgili işlemler dahil)
- ➔ telif hakkı yönetimi
- ➔ üretim izleme
- ➔ yönetimle ilgili diğer uygulamalar



DOI’de Başlıca “Oyuncular”

- ➔ Paydaşlar (yazarlar, yayıncılar, kütüphaneler, kullanıcılar, müzik dağıtıcıları vb. gibi diğer “içerik” endüstrileri (CISAC))
- ➔ Hak sahipleri (IFFRO)
- ➔ Aracılar
- ➔ Kullanıcılar
- ➔ Teknolojiyle ilgili kimseler
- ➔ Hükümet kuruluşları
- ➔ İnternet’te ticaretle ilgili kimseler



Uluslararası DOI Vakfı

- ➔ DOI’nin yönetiminden sorumlu
- ➔ ABD ve Avrupa’da büroları var
- ➔ AAP ve diğer bazı yayıncılar kurucu üye
- ➔ Üyelik gönüllülük esasına dayanıyor
- ➔ Ön ek satın alma bedeli 1000 USD



Prototip DOI Servisi

- ➔ Yankee/CNRI/IDF (Frankfurt, 1998)
- ➔ DOI hizmetlerinin demosu
 - doi:10.1025/trialogue/898 Temel doküman
 - doi:(rights)@ 10.1025/trialogue/898 İzinler
 - doi:(docinfo)@ 10.1025/trialogue/898 Dok. hak.
bilgi
- ➔ Her servis farklı bir sunucu tarafından çözümlenebilir



Sorunlar I

- ☞ “Yapıtlara tanımlama numarası vermek çok güçlü bir eylem: Bir yapıtın farklı numaralara sahip iki kopyası tekildir.” (Lynch)
- ☞ Bunun anlamı ne?
 - Entellektüel içerik açısından
 - sürümler açısından
 - formatlar açısından
 - kopyalar açısından



Sorunlar II

- ☞ Her nesneye bir DOI numarası
 - Varsayım: Her dijital nesnenin bir kopyası ve izin bilgisi (metadata) tek bir “oyuncu”nun denetimi altındadır.
 - **Gerçekte ise haklar bölünebilir.**
- ☞ DOI henüz birden fazla tedarikçi seçeneği sunamıyor
- ☞ “Nesneler hizmetlerin babasıdır”
 - Her nesne bir dizi katma değerli hizmet için atlama tahtası işlevi görmelidir.



Sorunlar III

☞ Uzlaşmaya dayalı hak yönetimi

- nesne sahibini kesin olarak belirlemek (kullanıcı açısından, ticaret açısından)
- ticaret kurallarını koymak
- kurallara uyma mekanizmalarını belirlemek

☞ INDECS

- Elektronik Ticaret Sistemlerinde Verilerin Birlikte Çalışabilirliği

☞ DOI ve Metadata

- Dublin Core ve İşaretleme Dilleri



Kaynaklar I

- ☞ Aşağıda uluslararası literatürde çıkan DOI’yle ilgili yayın ve raporların listesi yer almaktadır. (Kaynakların çoğu DOI Web sitesinden alınmıştır. <http://www.doi.org/articles.html>)
- Arms, William A. **"Digital Object Identifiers (DOIs) and Clifford Lynch's five questions on identifiers"**. ARL: A Bimonthly Newsletter of Research Library Issues and Actions 194 (October 1997). Washington, DC: Association of Research Libraries.
 - Baker, Thomas. **"Languages for Dublin Core"**. D-Lib Magazine, December 1998, [[hdl:cnri.dlib/december98-baker](http://hdl.cnri.dlib/december98-baker)].
 - Bryan, Martin. **"Digital Object Identifiers"** July 1997.
 - Bide, Mark. **"In Search of the Unicorn: The Digital Object Identifier From a User Perspective"**. BNBRF Report 89, Book Industry Communication, February 1998.
 - **"The CNRI Handle System."** November 9, 1998.
 - Caplan, Priscilla. **"DOI or Don't We?"** The Public-Access Computer Systems Review 9(1), 1998.
 - **"DOI Gallery"**, 15 October 1997.
 - Erickson, John. **"Metadata Initiatives and the DOI: Implications for Electronic Commerce and Copyright Management Services"**. TRIALOGUE, Summer 1998, Number 8.
 - Green, Brian and Bide, Mark. **"Unique Identifiers: a brief introduction"**. Book Industry Communication/Editeur.
 - IETF Network Working Group. **"Handle System: A Persistent Global Name Service Overview and Syntax"**. July 16, 1998.



Kaynaklar II

- IETF URN Working Group. ["Uniform Resource Names \(urn\)"](#).
- IETF URN Working Group. ["Using Existing Bibliographic Identifiers as Uniform Resource Names"](#).
- International DOI Foundation. <http://www.doi.org/>
- Lynch, Clifford. ["Identifiers and Their Roles In Networked Information Applications"](#). **ARL: A Bimonthly Newsletter of Research Library Issues and Actions** 194 (October 1997). Washington, DC: Association of Research Libraries.
- Payette, Sandra. ["Persistent Identifiers on the Digital Terrain"](#), **RLG DigiNews**, Vol. 2, No. 2, April 15, 1998.
- Paskin, Norman. ["Publisher Item Identifier as a Means of Document Identification"](#). 9 April 1998.
- Paskin, Norman. ["Information Identifiers"](#). Originally published in **LEARNED PUBLISHING**, Vol. 10, No. 2, pp 135-156 (April 1997).
- Paskin, Norman. ["Digital Information Objects and the STM Publisher"](#). **STM Annual Report**, 1997.
- Powell, Andy. ["Unique Identifiers in a Digital World"](#). **Ariadne**, April 1997.
- Powell, Andy. ["Resolving DOI Based URNs Using Squid"](#). **D-Lib Magazine**, June 1998 [[hdl:enri.dlib/june98-powell](http://hdl.enri.dlib/june98-powell)].
- Rosenblatt, Bill. ["Solving the Dilemma of Copyright Protection Online"](#). **The Journal of Electronic Publishing**, Volume 3, Issue 2, December 1997.
- Rust, Godfrey. ["Metadata: The Right Approach"](#), **D-Lib Magazine**, July/August 1998 [[hdl:enri.dlib/july98/rust](http://hdl.enri.dlib/july98/rust)].



Uygulama Örnekleri

The Digital Object Identifier - Netscape

File Edit View Go Communicator Help

Bookmarks Location: http://www.doi.org/

Home | What's New? | Index | Contact Us | Members



The Digital Object Identifier System

Sponsored by the International DOI Foundation

About the DOI About the DOI Foundation Using DOIs Activities & Events

The Digital Object Identifier (DOI) is an identification system for intellectual property in a digital environment. Developed by the International DOI Foundation on behalf of the publishing industry, its goals are to provide a framework for managing intellectual content, help customers with publishers, facilitate electronic commerce, and enable automated copyright management. Here at DOI.ORG you can find information about the underlying DOI technology, discover the advantages of becoming a member of the International DOI Foundation.

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The Gallery Tour - Netscape

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Bookmarks Location: <http://www.doi.org/gallery/tour.html>

The DOI Gallery

The gallery is a tour of DOI response pages created by publishers who participated in Phase I of the DOI Prototype, and incorporated DOIs into their corporate web pages. The Gallery narration describes the different DOI applications chosen by each of the publishers, in an attempt to illustrate by example the variety of applications in use. While you should feel free to examine the response pages included here in any order you wish, bear in mind that the links are intended to be visited in the sequence in which they appear on this page.

10.1002/(ISSN)0887-624X

wiley doi server

Welcome to the Wiley DOI Server

A Digital Object Identifier (DOI) is a unique identification number assigned to online content for tracking purposes. As part of a collaborative effort among publishers and other online content producers, Wiley has tagged approximately 70,000 pieces of digital content with DOIs for use in resource discovery and journal crosslinking. This content includes journal articles and abstracts, journal tables of contents, and journal home pages.

home
10.1002/(ISSN)0887-624X
doi search results

Viewing 1 to 10 of 10 DOI(s). [\[New search\]](#)

- 1. DOI: [10.1002/\(SICD\)1097-4571\(199610\)47:10<730::AID-ASI2>3.0.CO;2-3](http://10.1002/(SICD)1097-4571(199610)47:10<730::AID-ASI2>3.0.CO;2-3)
 Item type: article
 Journal title: Journal of the American Society for Information Science, Vol. 47, No. 10, p. 730
 Author: Egghe, L.
 Depositor: John Wiley & Sons, Inc.

Document: Done

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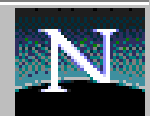
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ELSEVIER
SCIENCE

DOI

New Astronomy

Wayne Hu and Martin White

A CMB polarization primer

DOI

Earth and Planetary Science Letters

<http://hdl.handle.net/10.1016/S1384107697000225>

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[References](#)

Pattern Recognition by Splitting Images Into Trees of Fuzzy Regions

[Laurent Wendling, Jacky Desachy, Alain Paries](#)

Manuscript received 8 July 1996; reviewed 30 September 1996; accepted 16 December 1996

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ALCS DOI Page - Netscape

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Bookmarks Location: http://www.alcs.co.uk/doidocs/index.htm



British Authors' Society Announces Numbering System and Watermarking for Texts

In 1996 the UK Authors' Licensing and Collecting Society (ALCS) extended its commitment to authors' rights by setting up a Journalists' Business Unit. Created both to safeguard the intellectual property rights of journalist members and help them secure fair remuneration for their work, the Unit's activities have since broadened considerably. In future, few activities will be more significant than ALCS's initiative in licensing electronic versions of journalists' work in an electronic trading environment.

ALCS is proud to announce that In 1998, using the technology of the European Commission-sponsored IMPRIMATUR project for the development of electronic copyright management systems, ALCS launched on the Internet a an initial trial named **ByLine** to demonstrate

- Introduction
- Sitemap
- Search
- News
- FAQs
- Help
- Links
- Index
- Forums
- How To Join
- Departments



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Page 9 of 40 100% 8.26 x 11.69 in



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For the article [*Authors' Rights in a Digital Environment*](#) by Chris Barlas which first appeared in The Sunday Times and which, with the other examples shown, is part of the **ByLine** database, the full DOI is expressed 10.054/001.000.015.4/142756081, where each component has the following source:

10.	054/.	001.000.015.4	142756081
DOI issuing authority (here ALCS)	Rightsholder number (again ALCS)	ISWC-L number	CAE number (Chris Barlas author number)

DOI

Authors' Rights in a Digital

Environment

DOI

Cossack Cruise

<http://hdl.handle.net/10.054/001.000.015.4/142756081>



copyright direct™

- payment
- help
- services
- about

Dialogue: Summer 1998:

Author: Jennifer Goodrich

Publication Date: 1998

Publisher: Yankee Book Peddler, Inc.

Copyright Direct™ ID: 35

DOI: 10.1025/trialogue/898

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The Handle System[®]

The Corporation for National Research Initiatives

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- administration
- CNRI home page

The Handle System[®] is a distributed computer system which stores or handles, of digital items and which can quickly resolve those names to the information necessary to locate and access the items. It was developed by CNRI as a general purpose global system for the reliable management of information on networks such as the Internet over long periods of time. It is currently in use in a number of prototype projects, including efforts by the Library of Congress, the Defense Technical Information Center, the International DOI Foundation, and the National Music Publishers' Association.

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Handle System Overview - Netscape

File Edit View Go Communicator Help

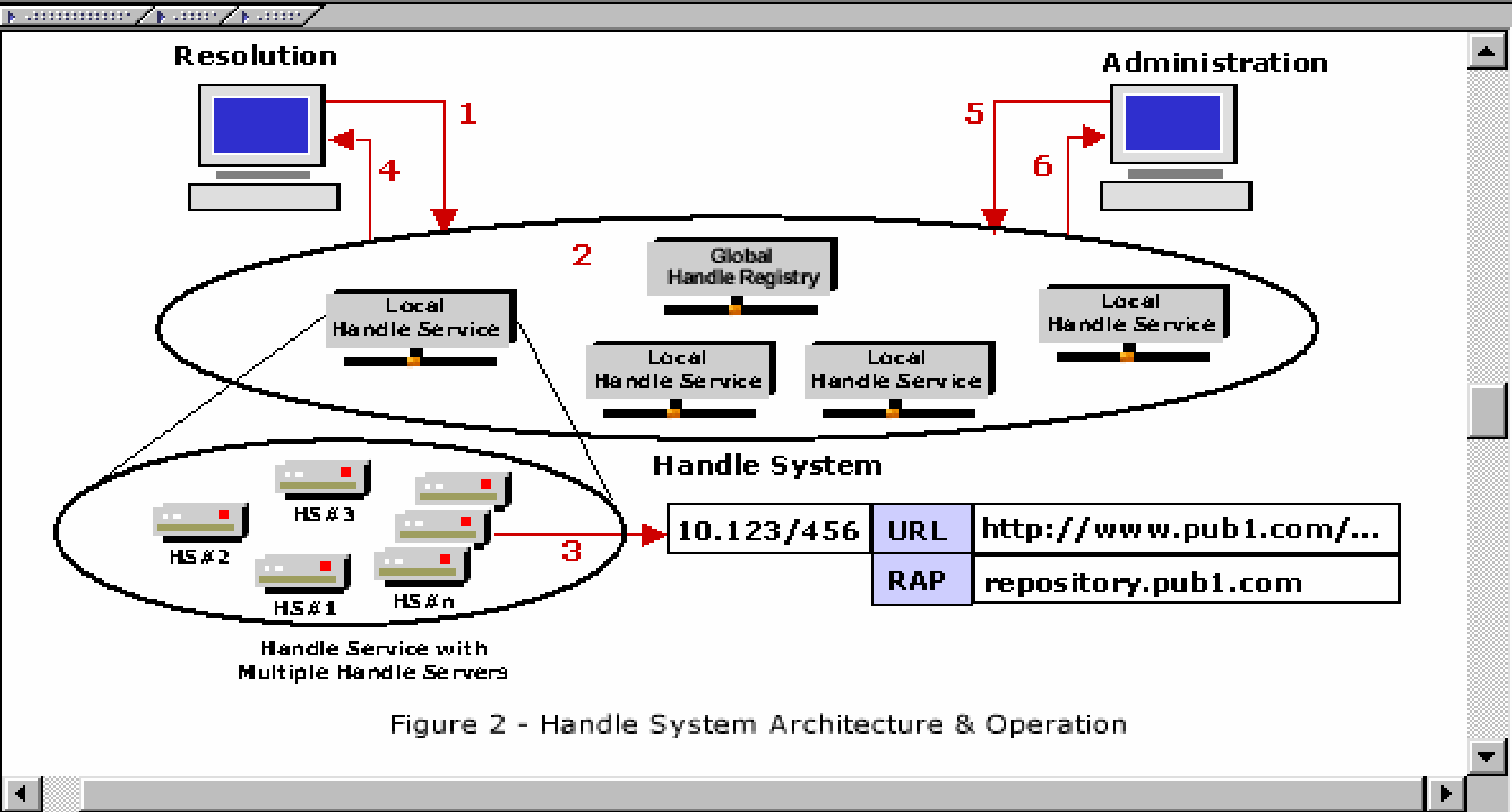


Figure 2 - Handle System Architecture & Operation

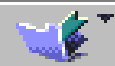
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Handle Proxy - Netscape



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Implementing policies for access management - Netscape

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Bookmarks Location: <http://www.dlib.org/dlib/february98/arms/02arms.html>



STORIES

**D-Lib Magazine
February 1998**

ISSN 1082-9873

Implementing Policies for Access Management

William Yeo Arms
Corporation for National Research Initiatives
Reston, Virginia
warms@cnri.reston.va.us

96% of 3K



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Show Handle Data - Netscape

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Bookmarks Location: <http://www.handle.net/docs/gethdl.html>

Handle to URL

This form is designed to show the data associated with a Handle that resolves to a single URL.

Type the Handle in the following box:

hdl:

Document: Done

Document: Done

Show Handle Data - Netscape

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Bookmarks Location:

Handle to URL

This form is designed to show the data associated with a Handle that resolves to a single URL.

Type the Handle in the following box:

hdl:

Specify handle proxy here (default is hdl.handle.net):

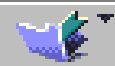
http://

Document: Done

Document: Done

Handle to URL - Netscape

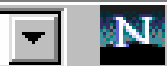
File Edit View Go Communicator Help



Bookmarks



Location: http://www.handle.net/cgi-bin/HS/Show.py



Handle to URL

The handle:

cnri.dlib/february98-arms

resolves to URL:

<http://www.dlib.org/dlib/february98/arms/02arms.html>

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NCSTRL Home Page - Netscape

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RLG DigiNews: Volume 2, Number 2 http://www.ncstrl.org/



Networked Computer Science Technical Reference Library

New!!
Read about [CoRR](#)
[D-Lib](#) in NCSTRL

author = *salton*

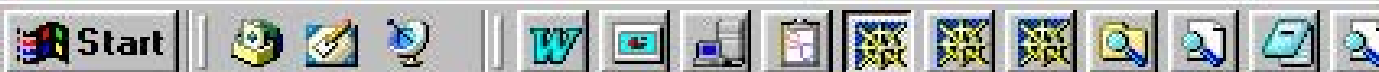
Search Results (86 results sorted by rank):

<i>Title</i>	<u>Some Notions about Information Retrieval in Automated Office Environments</u>
<i>Author(s)</i>	<u>Gerard Salton</u>
<i>Document ID</i>	ncstrl.cornell/TR84-609
<i>Institution</i>	Cornell University, Computer Science

Return to previous document in history list

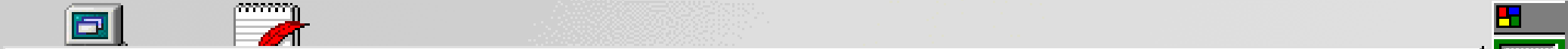
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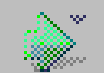


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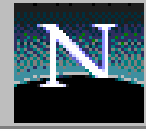
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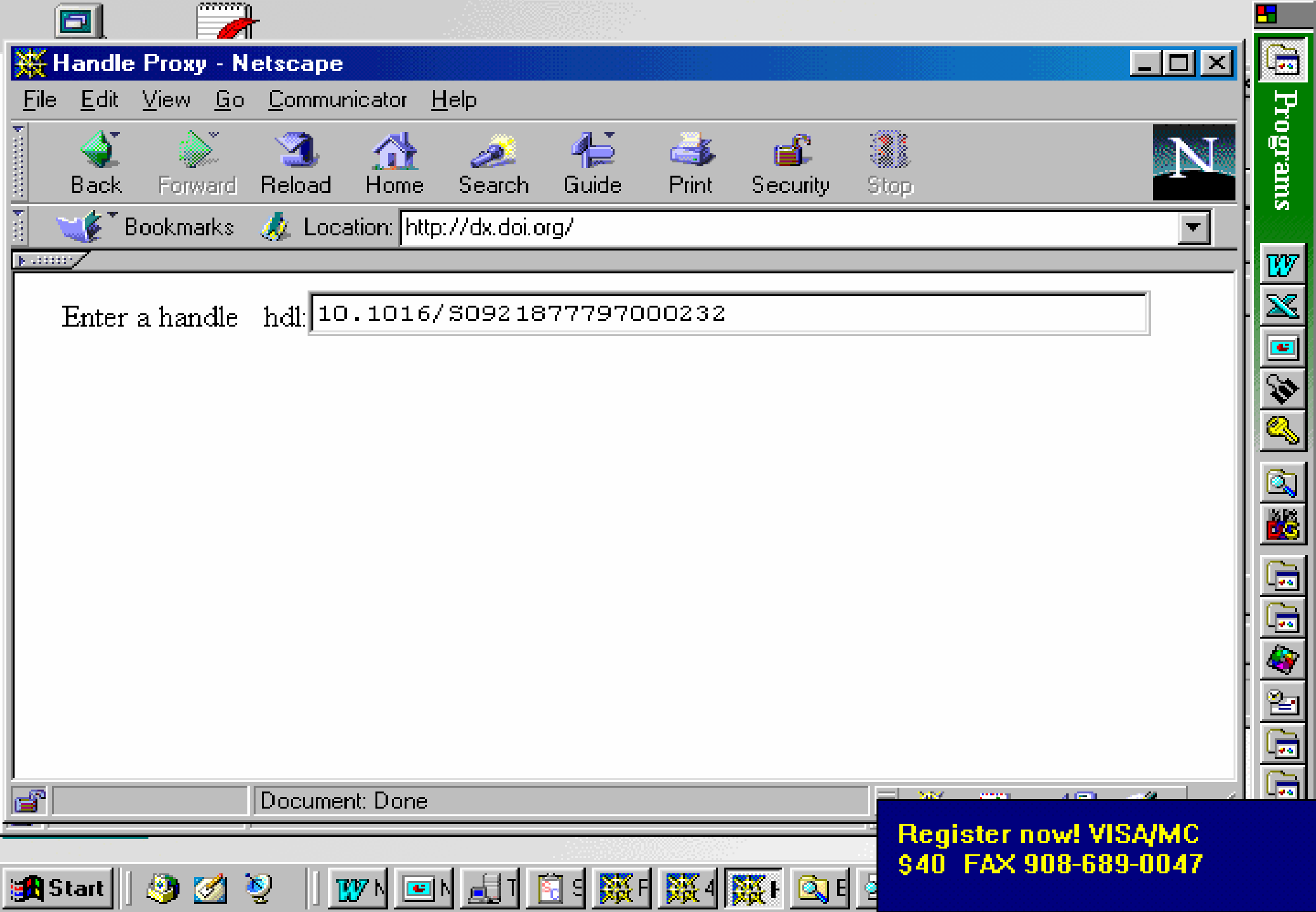
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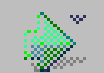


Handle Proxy - Netscape

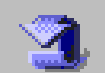
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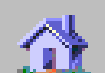
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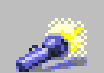
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Guide



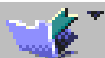
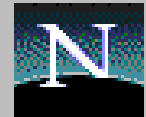
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Location:

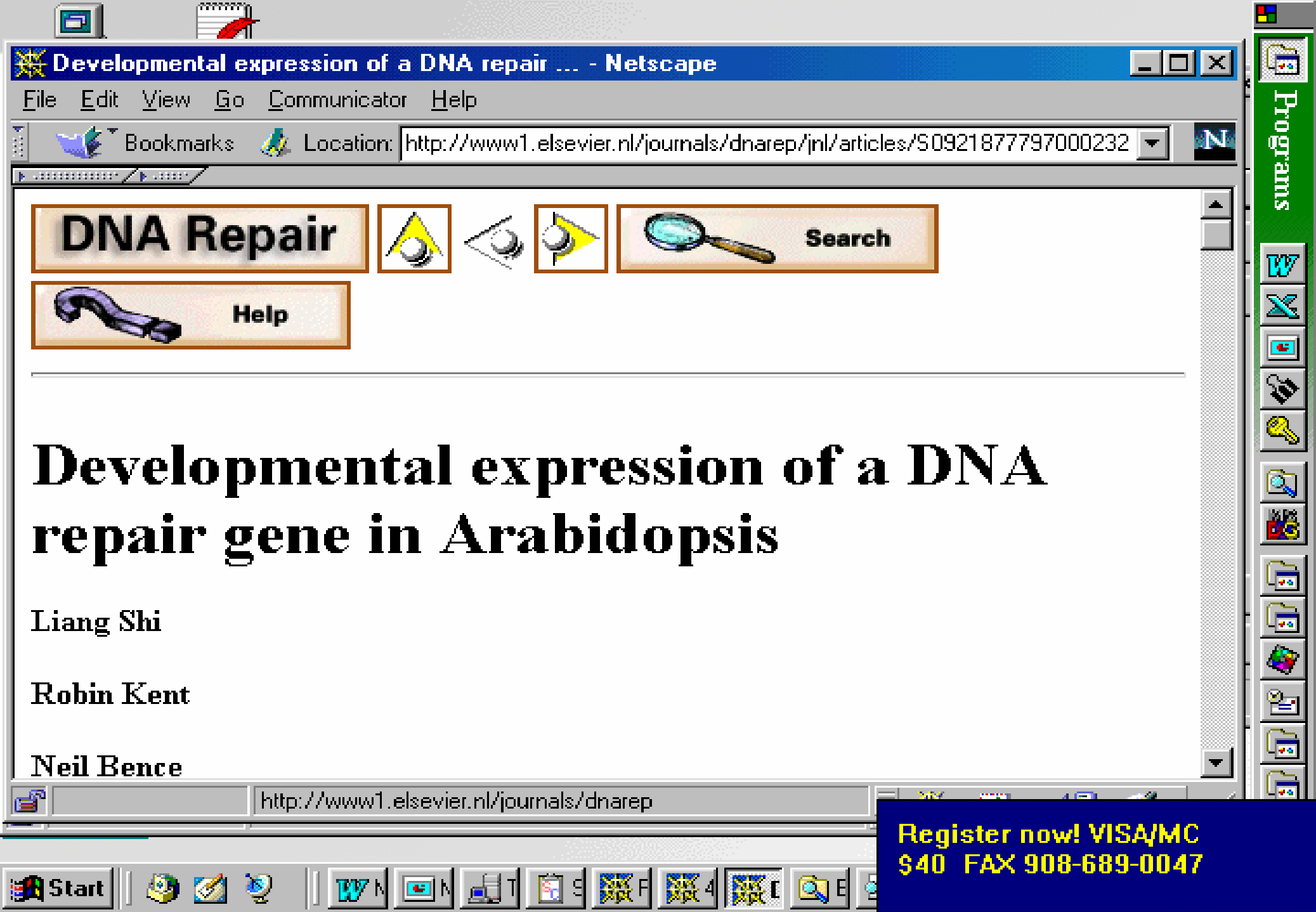
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Programs



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