A native iPad app for DSpace 7

Southern Miss Institutional Repository Conference 2019
Presented by Keith Gilbertson
Virginia Tech

Why a native mobile application?

- Approximately 1/3 of the traffic to VTechWorks, our DSpace repository, is from mobile devices

- Most DSpace repositories are accessible from a web browser on mobile devices, but my "hunch" is that some users will prefer to use apps especially made for their devices

- Native mobile apps make it easy to support features like fast, infinite scrolling, swipe to delete, and user font size preference

- We can also add new features, such as working while offline

Why iPad?

- I already have some familiarity with the iOS development environment

- When I reviewed usage (early 2018) approximately half of our mobile usage was from iOS. Android was not far behind, with some Windows mobile and Blackberry users

Why DSpace 7?

- Our main repository, VTechWorks, is a DSpace repository with 70,000 items

- DSpace 7 will have a new web interface that will depend on changes to the REST API for all functionality. This means the REST API will be complete, making it easier to build other apps, including mobile apps, to interact with the repository.

Current status - prototype of view functionality

- Initial prototype with **view** features was completed

- Browse communities

- Browse collections

- Browse items

- View item information

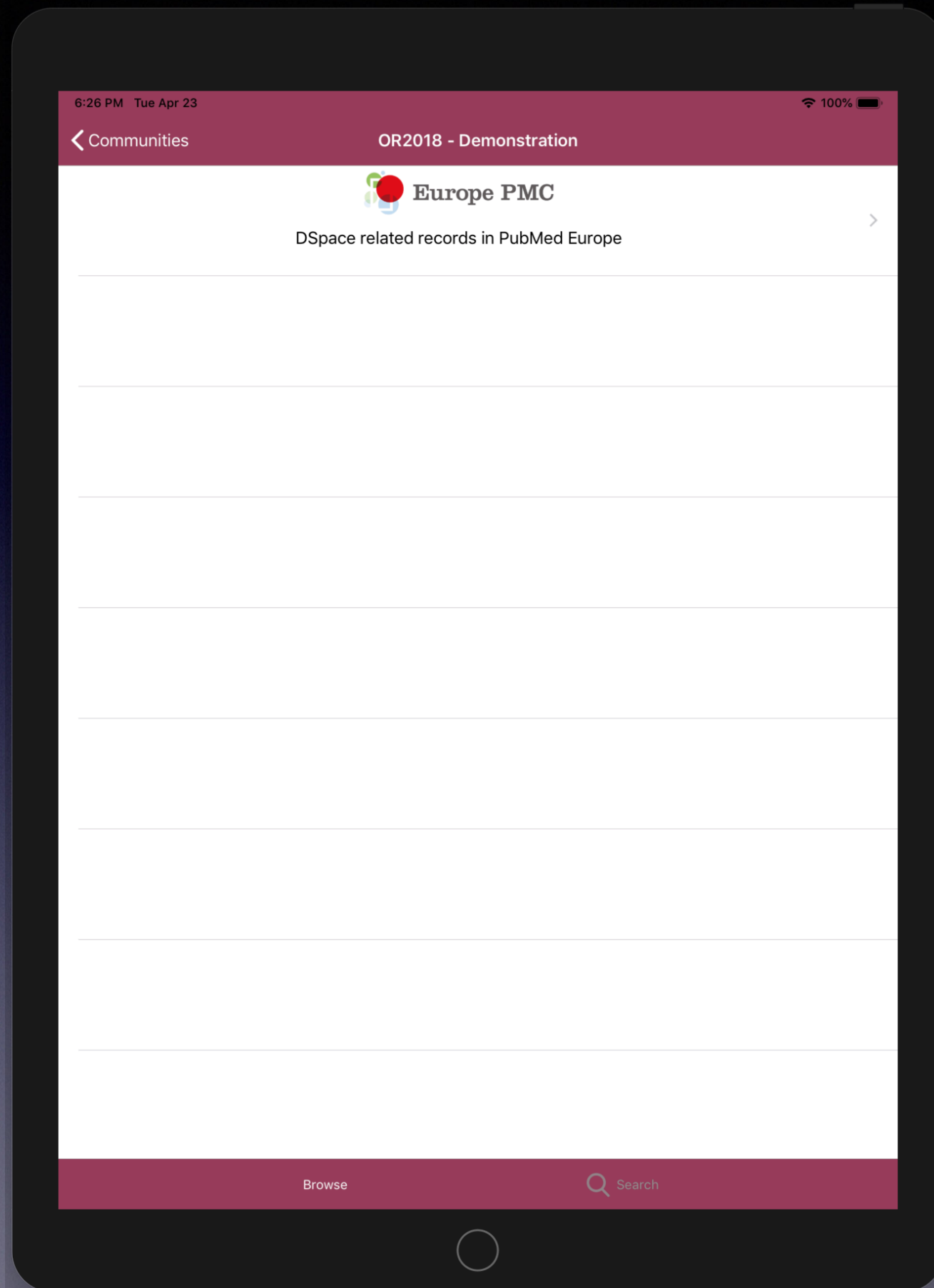- Search for items

- View the most common file formats
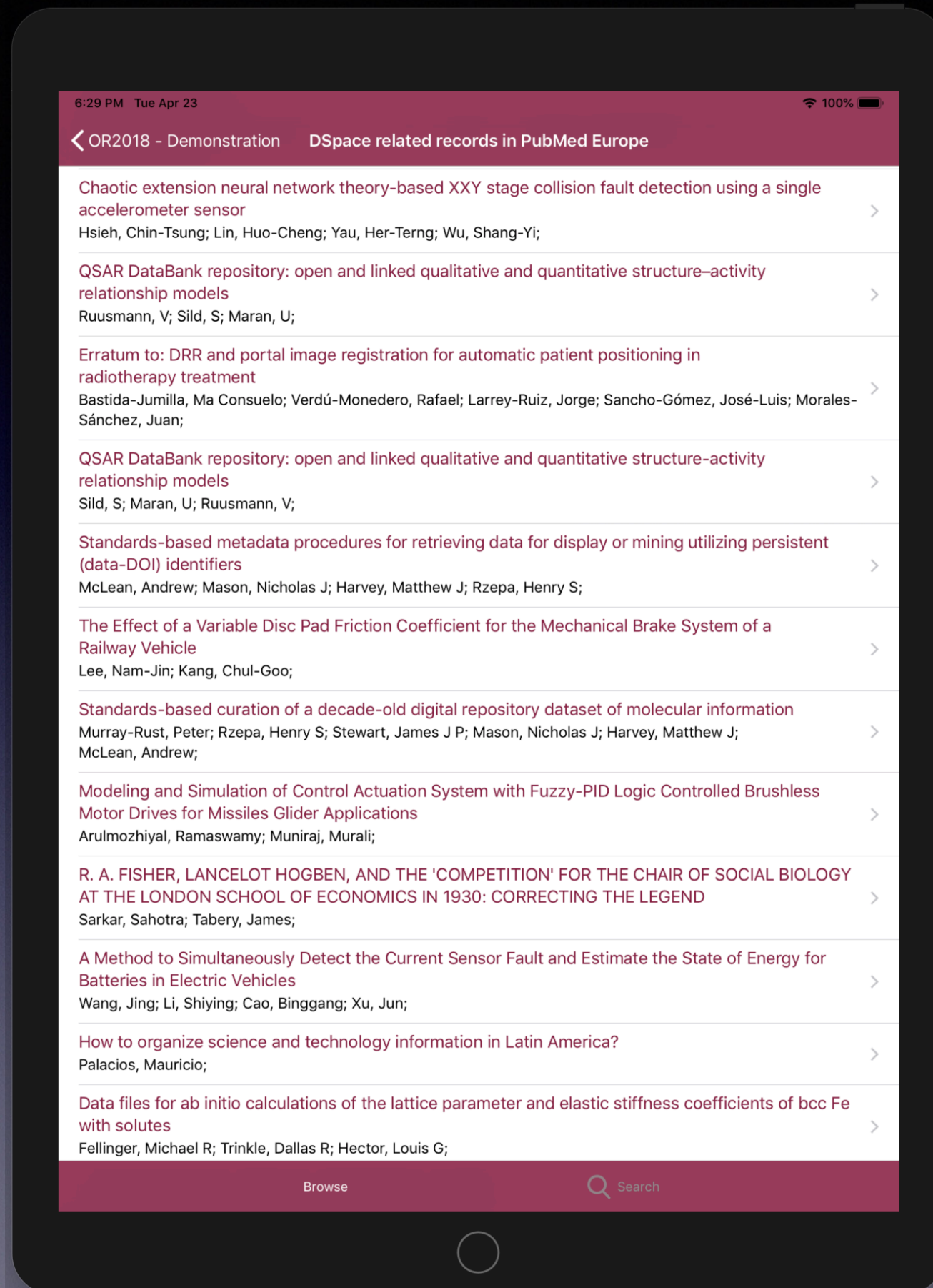
Finding Items

- Browsing

- Searching
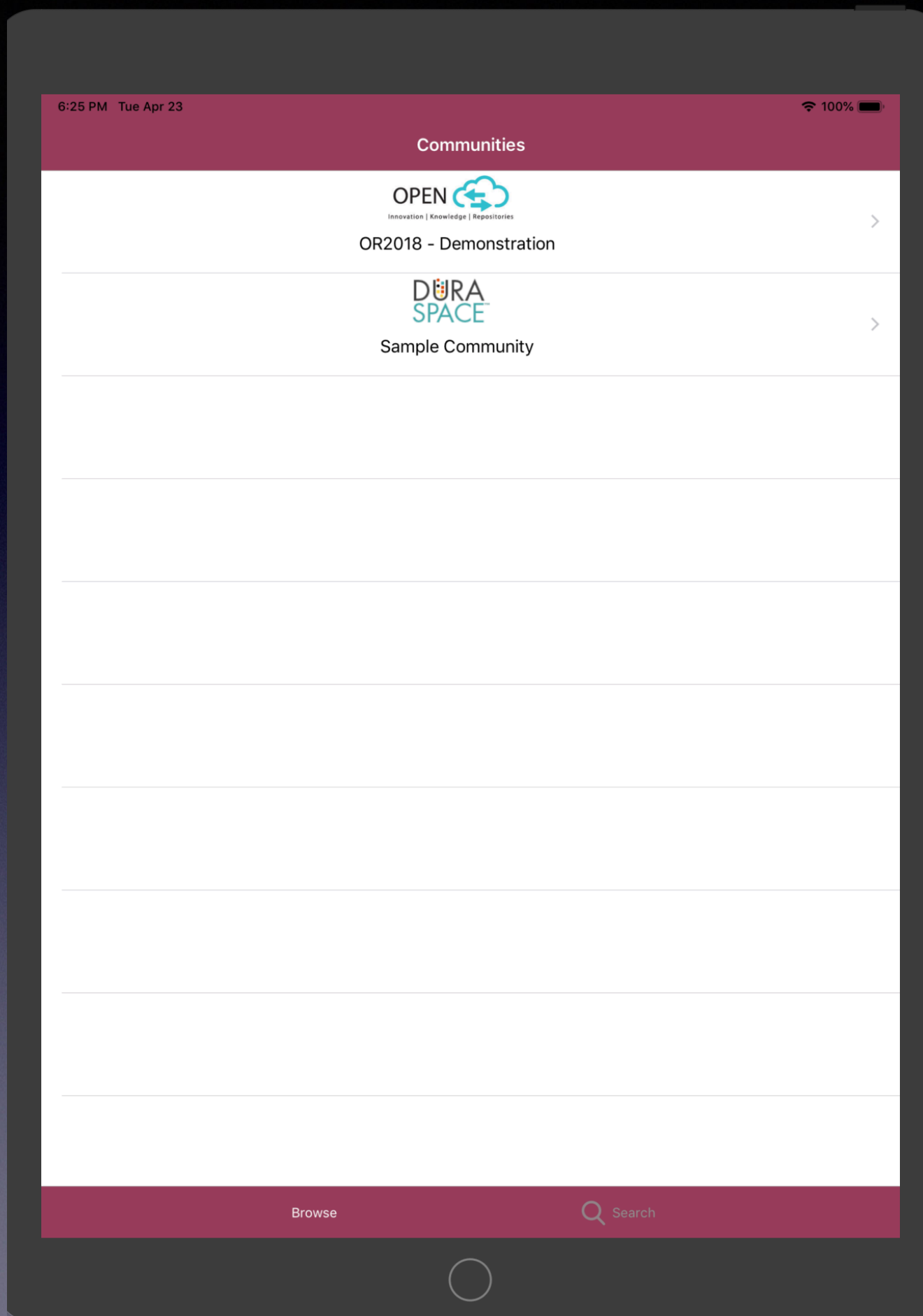
Browse Communities

- Communities appear with their logos
- Tapping a community goes to a list of collections within the community

Browse Collections

- Collections appear with their logos
- Tapping a collection goes to a list of items within the collection

# Browse items

- Thumbnails do not appear (I may make this configurable)
- Tapping an item goes to a list of files and item metadata

‹ DSpace related records in PubMed Europe

Title

A metadata-driven approach to data repository design

Files

pubmedEurope-PMC5265225.pdf ›
2.2 MB

license.txt ›
Zero KB

Author

McLean, Andrew

Harvey, Matthew J

Rzepa, Henry S

Metadata

2017-06-24T00:42:18Z
dc.date.accessioned

2017-06-24T00:42:18Z
dc.date.available

2017-01-24
dc.date.issued

http://dspace7.4science.it/xmlui/handle/10673/27
dc.identifier.uri

The design and use of a metadata-driven data repository for research data management is described. Metadata is collected automatically during the submission process whenever possible and is registered with DataCite in accordance with their current metadata schema, in exchange for a persistent digital object identifier. Two examples of data preview are illustrated, including the demonstration of a method for integration with commercial software that confers rich domain-specific data analytics without introducing customisation into the repository itself.
dc.description.abstract

Submitted by Andrea Bollini (andrea.bollini@4science.it) on 2017-06-24T00:42:18Z
No. of bitstreams: 1
pubmedEurope-PMC5265225: 2206241 bytes, checksum: 3f31172ecaaee0a976607e488b9726cd (MD5)
dc.description.provenance

Made available in DSpace on 2017-06-24T00:42:18Z (GMT). No. of bitstreams: 1
pubmedEurope-PMC5265225: 2206241 bytes, checksum: 3f31172ecaaee0a976607e488b9726cd (MD5)
  Previous issue date: 2017-01-24

Browse   Q Search

iPad Air (3rd generation) — 12.2

Item information

- Title
- List of Files
- Item Metadata
- Tapping on a file will bring you to the file viewer
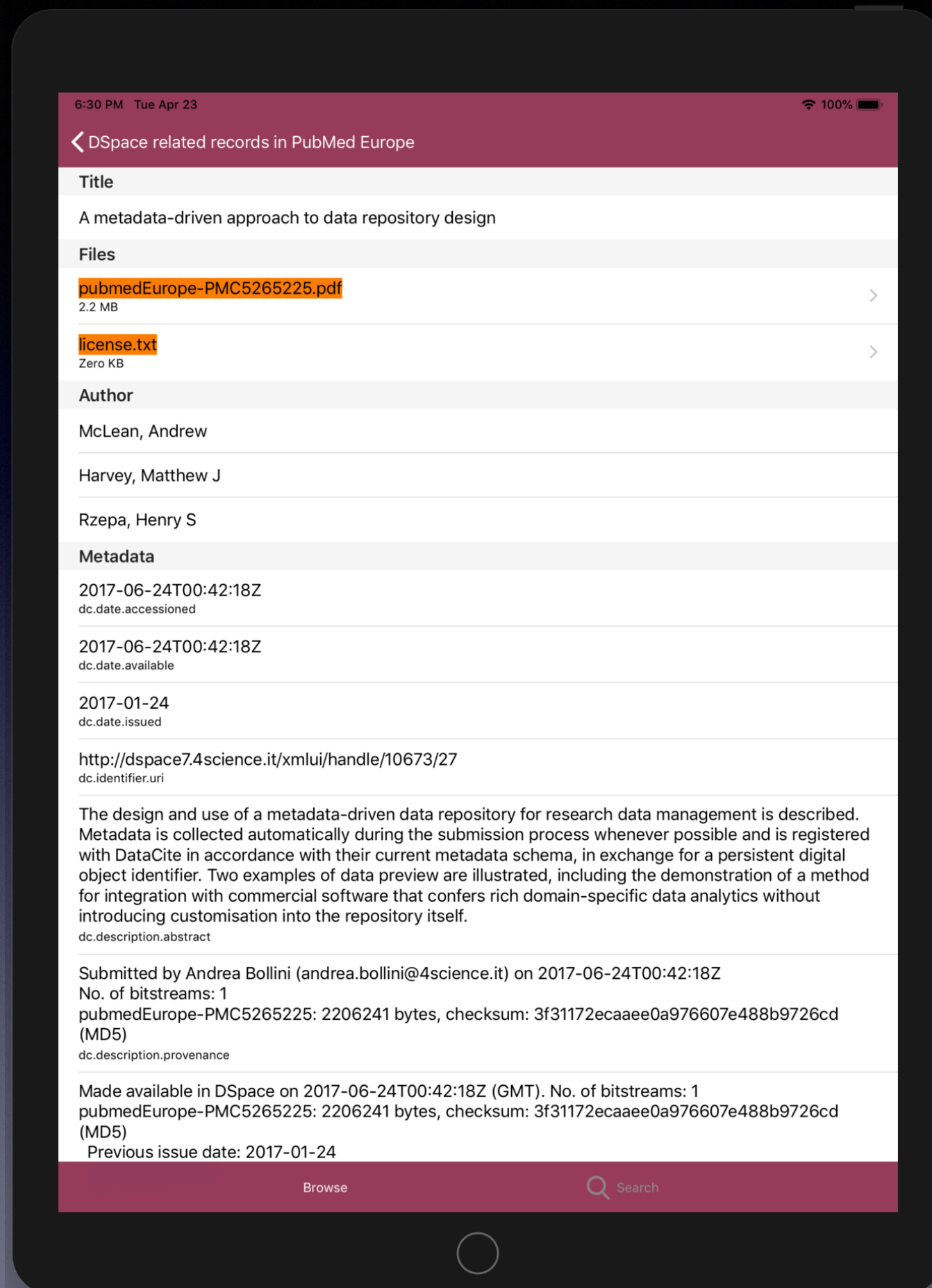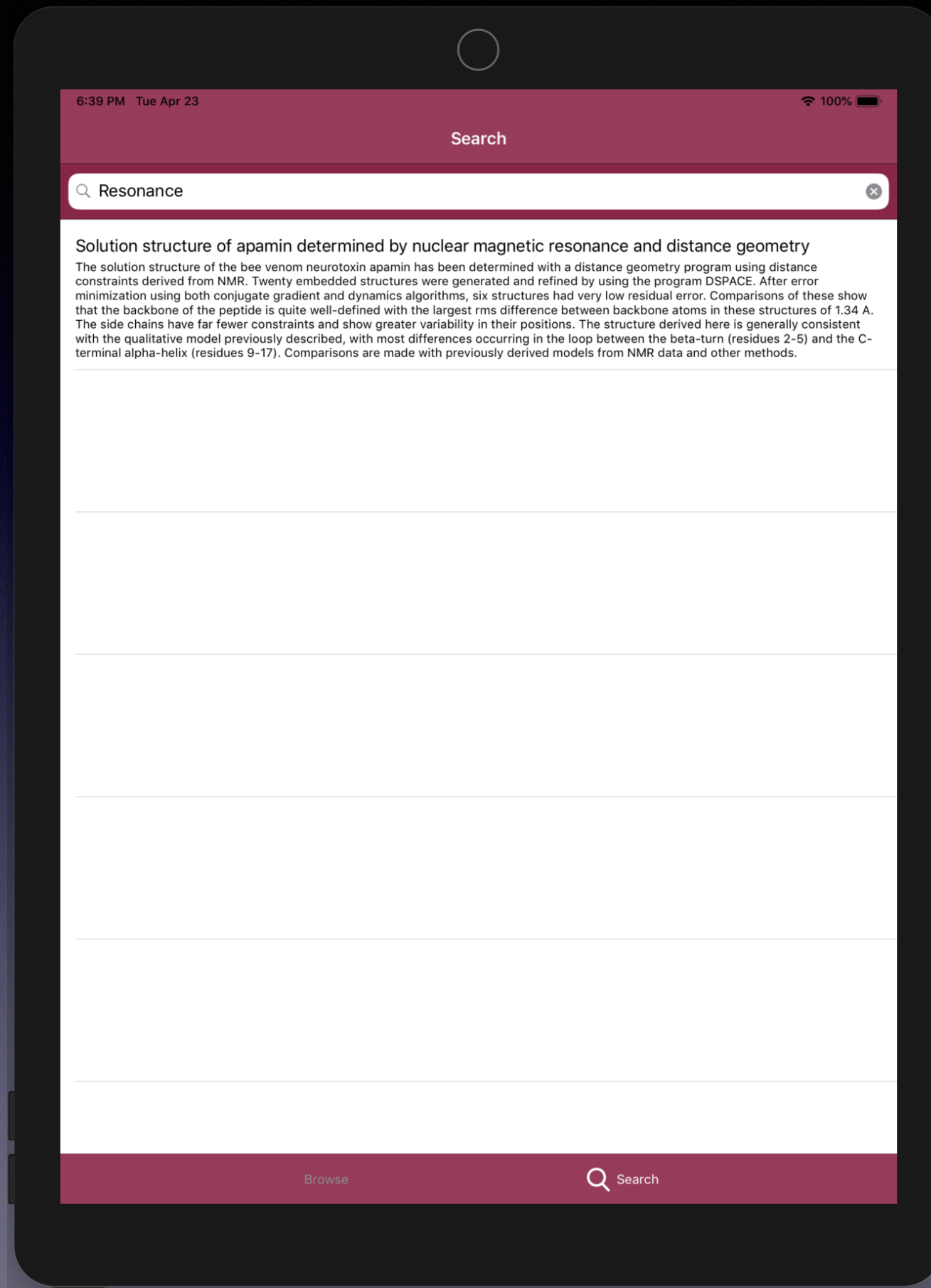
Search Items

- In the initial releases, search will likely be very basic
- Search can be accessed from the magnifying glass tab icon
- Search terms are typed in the bar at the top of the screen
- Found items appear in the table below
- Tapping takes to the item information view

Title

Solution structure of apamin determined by nuclear magnetic resonance and distance geometry

Files

license.txt

>

Zero KB

Author

Wemmer

Pease

Metadata

2017-06-24T01:06:04Z

dc.date.accessioned

2017-06-24T01:06:04Z

dc.date.available

1988-11-01

dc.date.issued

http://dspace7.4science.it/xmlui/handle/10673/141

dc.identifier.uri

The solution structure of the bee venom neurotoxin apamin has been determined with a distance geometry program using distance constraints derived from NMR. Twenty embedded structures were generated and refined by using the program DSPACE. After error minimization using both conjugate gradient and dynamics algorithms, six structures had very low residual error. Comparisons of these show that the backbone of the peptide is quite well-defined with the largest rms difference between backbone atoms in these structures of 1.34 A. The side chains have far fewer constraints and show greater variability in their positions. The structure derived here is generally consistent with the qualitative model previously described, with most differences occurring in the loop between the beta-turn (residues 2-5) and the C-terminal alpha-helix (residues 9-17). Comparisons are made with previously derived models from NMR data and other methods.

dc.description.abstract

Submitted by Andrea Bollini (andrea.bollini@4science.it) on 2017-06-24T01:06:03Z
No. of bitstreams: 0

dc.description.provenance

Made available in DSpace on 2017-06-24T01:06:04Z (GMT). No. of bitstreams: 0
  Previous issue date: 1988-11-01

dc.description.provenance

Item withdrawn by Andrea Bollini (andrea.bollini@4science.it) on 2017-06-24T21:32:50Z
Item was in collections:
DSpace related records in PubMed Europe (ID: 8e0928a0-047a-4369-8883-12669f32dd64)

◑ Journal of Cheminformatics

RESEARCH ARTICLE   **Open Access**

CrossMark

A metadata-driven approach to data repository design

Matthew J. Harvey[1], Andrew McLean[2] and Henry S. Rzepa[3*] ◉

Abstract

The design and use of a metadata-driven data repository for research data management is described. Metadata is collected automatically during the submission process whenever possible and is registered with DataCite in accordance with their current metadata schema, in exchange for a persistent digital object identifier. Two examples of data preview are illustrated, including the demonstration of a method for integration with commercial software that confers rich domain-specific data analytics without introducing customisation into the repository itself.

Keywords: Data repository, Metadata-driven, DataCite, Data preview, Mpublish

Background

Turnkey institutional repositories based on platforms such as DSpace [1] were introduced more 10 years ago, with the early applications directed largely towards archival of publication preprints and postprints. The recent increasing requirement for research data management emerging from funding agencies means that the focus is now shifting to the use of repositories as part of the data management processes. More recent data-centric tools such as Figshare [2] and Zenodo [3] reflect these changes. Such services rely on the minting of persistent identifiers or DOIs for the depositions using the DataCite agency [4]. Metadata describing the deposited material is supplied to DataCite and a DOI is returned. An early example of such research data management is illustrated by a DSpace-based project to produce and then 10 years later to curate a library of quantum-mechanically-optimised molecular coordinates derived from a computable subset of the National Cancer Institutes (NCI) collection of small molecules [5]. One feature of the curation phase [6] of the project aimed to explore the capabilities of the Data-Cite metadata schemas to improve the discoverability of the deposited data. The metadata can then be exploited to create rich search queries [7]. As a result of the experiences gained from this project, we became aware that one limiting factor

to the effective use of metadata was the repository design itself. The next stage therefore was to explore whether what we considered the essential requirements for a data repository could be incorporated into a new design. Here we report the principles used to create such a repository and some of the applications in chemistry that have resulted. These principles may in turn assist researchers wishing to deposit data in identifying the repository attributes that can best expose the discoverability and re-use of their data.

Data repository design features

- Here we describe the requirements we identified for a metadata-driven repository, an instance of which is deployed by the Imperial College HPC Service at https://data.hpc.imperial.ac.uk In our design, we have focused on enhancing the FAIR [8] attributes of the data. The first attribute F means the data must be findable and practically this means making the metadata descriptors as rich and complete as possible to enable this. A = Accessibility is achieved by assigning persistent identifiers to the datasets and again associating them with appropriate metadata to enable automated retrieval processes if appropriate. This in turn helps ensure that the data can be accessed in a standard manner to enable its inter-operability in various software environments. R = Re-usability is related to understanding and trusting its provenance and the license terms under which it can be processed.
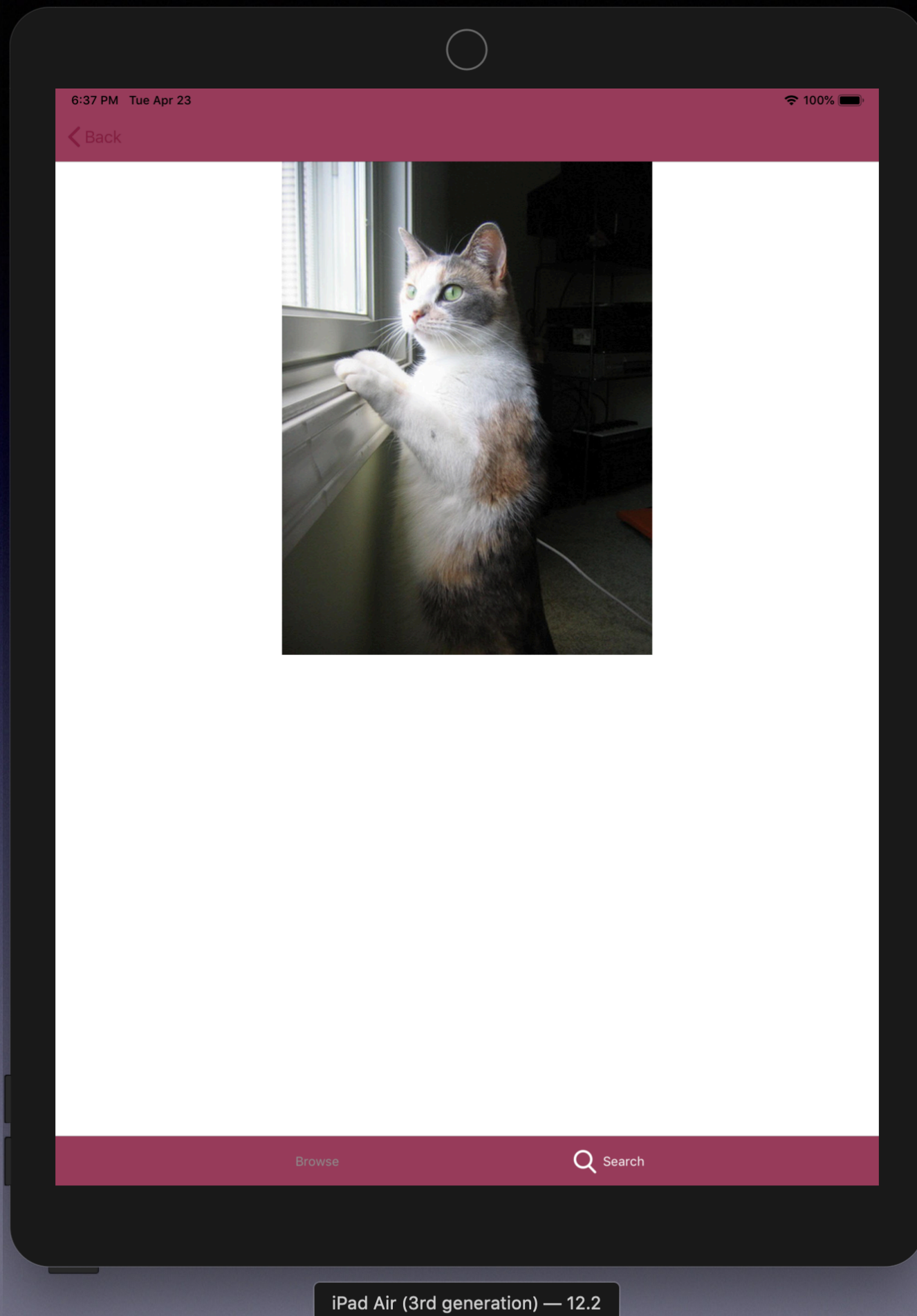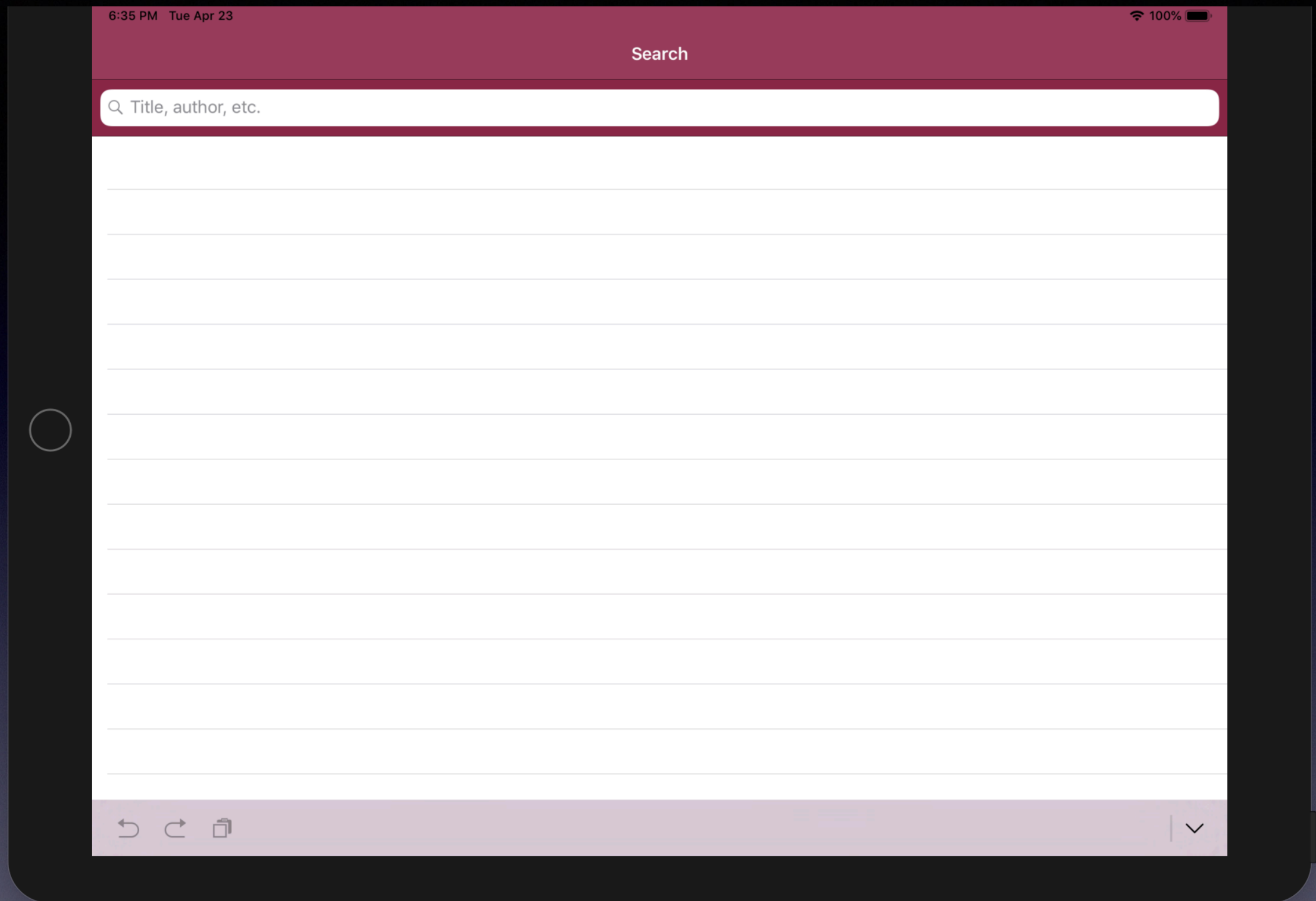
*Correspondence: rzepa@imperial.ac.uk
[3] Department of Chemistry, Imperial College London, South Kensington Campus, London SW7 2AZ, UK
Full list of author information is available at the end of the article

Springer Open

File Viewer - Image

Currently Supported File Formats in Viewer

- PDF

- Microsoft Word (.doc and .docx)

- Microsoft Excel

- PowerPoint

- Web image formats (PNG, JPG, GIF)

- Partial support for HTML

RESEARCH ARTICLE

Open Access

CrossMark

A metadata-driven approach to data repository design

Matthew J. Harvey[1], Andrew McLean[2] and Henry S. Rzepa[3*] Ⓘ

Abstract

The design and use of a metadata-driven data repository for research data management is described. Metadata is collected automatically during the submission process whenever possible and is registered with DataCite in accordance with their current metadata schema, in exchange for a persistent digital object identifier. Two examples of data preview are illustrated, including the demonstration of a method for integration with commercial software that confers rich domain-specific data analytics without introducing customisation into the repository itself.

Keywords: Data repository, Metadata-driven, DataCite, Data preview, Mpublish

Background

Turnkey institutional repositories based on platforms such as DSpace [1] were introduced more 10 years ago, with the early applications directed largely towards archival of publication

to the effective use of metadata was the repository design itself. The next stage therefore was to explore whether what we considered the essential requirements for a data repository could be incorporated into a new design. Here we report

Search - Horizontal Mode

Item Browse - Horizontal Mode
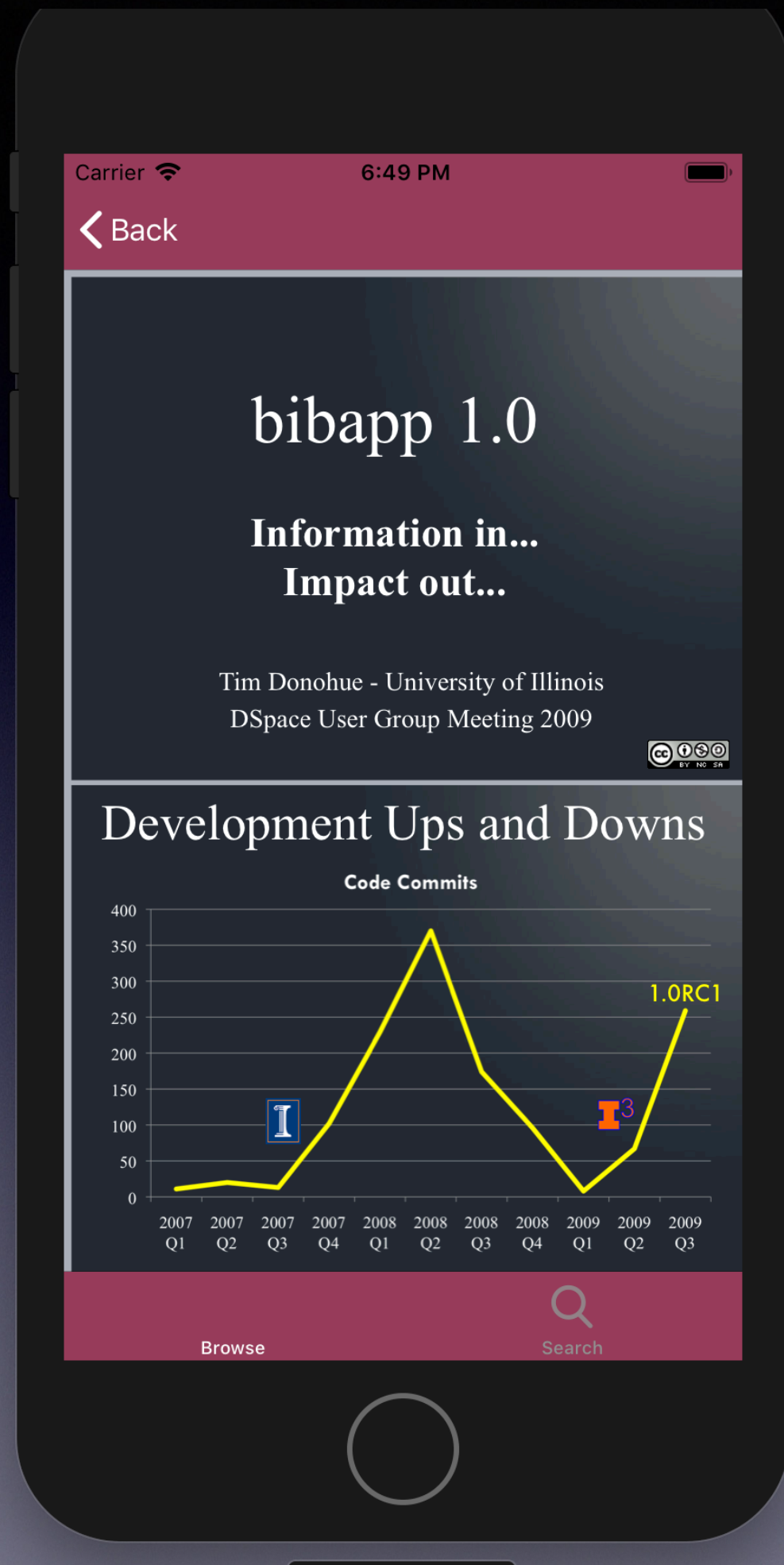
The app will also adjust and work on iPhones

ARTIGOS

A utilização das estatísticas criminais no planejamento da ação policial: cultura e contexto organizacional como elementos centrais à sua compreensão

Ana Luísa Vieira de Azevedo
Doutoranda em administração pela Fundação Getúlio Vargas, Escola Brasileira de Administração Pública e de Empresas. Rio de Janeiro, RJ – Brasil. Mestre em sociologia pela Universidade Federal do Rio de Janeiro, Instituto de Filosofia e Ciências Sociais. Mestre em Estudos Populacionais e Pesquisas Sociais pelo Instituto Brasileiro de Geografia e Estatística, Escola Nacional de Ciências Estatísticas. Rio de Janeiro, RJ - Brasil
E-mail: analuisa.azevedo@bol.com.br

Vicente Riccio
Doutor em sociologia pelo Instituto Universitário de Pesquisas do Rio de Janeiro (Iuperj). Professor adjunto da Escola Brasileira de Administração Pública e de Empresas da Fundação Getulio Vargas (Ebape-FGV). Rio de Janeiro, RJ - Brasil
E-mail: vriccio@fgv.br

Marco Aurélio Ruediger
Doutor em sociologia pelo Instituto Universitário de Pesquisas do Rio de Janeiro (Iuperj). Professor adjunto da Escola Brasileira de Administração Pública e de Empresas da Fundação Getulio Vargas (Ebape-FGV). Rio de Janeiro, RJ –Brasil
E-mail: ruediger@fgv.br

Resumo

A utilização da informação no planejamento da atividade policial se coloca como uma das principais questões no debate sobre os paradigmas de segurança pública contemporâneos. Dessa forma, as estatísticas criminais situam-se como importante instrumento neste processo. Este artigo busca promover uma reflexão sobre o uso das estatísticas criminais pelos profissionais de segurança pública como uma fonte de informação para o planejamento de suas ações. Para tal, foram abordadas três variáveis consideradas centrais para o desenvolvimento da discussão: os paradigmas de policiamento contemporâneos, a utilização e as funcionalidades das estatísticas no planejamento da atividade policial, e a utilização das estatísticas criminais por parte dos profissionais de segurança pública tendo em

vista o contexto organizacional no qual estão inseridos. A conclusão do artigo aponta para a necessidade de se observarem a cultura e a estrutura das instituições policiais como elementos centrais no desenvolvimento de um modelo de policiamento marcado pela inteligência, pró-atividade e prevenção à criminalidade.

Palavras-chave

Segurança pública. Instituições policiais. Estatísticas criminais. Planejamento da atividade policial. Uso da informação.

The use of criminal statistics in the planning of police activities: culture and organizational contexts as central elements to its understanding

Abstract

The use of information on the planning of police activities is one of the core issues concerning the debate on the contemporary public security paradigms. Thus, the criminal statistics are an important instrument in this process. This article promotes a discussion about the usage of criminal statistics as a source of information in their planning actions. Three variables were considered on the paper's development: the contemporary policing paradigms; the usage and the functionalities of criminal statistics in their planning activities; and the usage of criminal statistics by law enforcement officers and their organizational context. As a conclusion, the paper considers the necessity to observe the culture and structure of police institutions as a key element in a model of policing based on intelligence, pro-activity and crime prevention.

Keywords

Public security. Police institutions. Criminal statistics. Police activities planning. Information use.

9

Ana Luísa Vieira de Azevedo / Vicente Riccio / Marco Aurélio Ruediger

INTRODUÇÃO

O presente artigo analisa a utilização das estatísticas criminais na gestão de políticas de redução da violência.

do campo da segurança pública e se relaciona com as questões concernentes ao desenvolvimento dos sistemas de informação e ao contexto de sua utilização, bem como em relação à cultura

Next phase - prototype of administrative functionality

- Add the ability to add communities, collections, and items from within the app

- Add the ability to delete items from within the app

- Add the ability to modify metadata from within the app

Third phase - offline support

- Support browsing communities, collections, items, and item information

- Support adding new communities, collections, and items

- Support editing metadata

- Support adding files to items

- Changes will be synchronized to the DSpace system when your device is online again

- Not supported - viewing files that have not yet been downloaded

- Not sure yet if this can be supported: searching for items

Production phase

- Rewrite prototype so that it is ready for production use (very fast, and also easy to update)

- Optimize performance - all items, communities, collections, should appear to come up instantly, whether the user is online or offline

- Make sure that typical native mobile features are supported - for example, swipe to delete, fast infinite scrolling

- Handle file types that are not yet supported

- Work on visual design aspects (hopefully with a designer) to improve the look of the interface. Also get an app icon

- Test on larger repositories (75,000 items instead of 30 items)

Release schedule

- 2019

- The goal is to have an initial release of the app ready around the time that DSpace 7 is released later this year.

- This depends to some degree on how much time I'm able to devote to the project between other responsibilities, but I'm highly motivated to release an initial version of the app ASAP.

Will there be an Android version?

- This depends on how well the iOS version is received, and on funding and work availability.

- It's a great opportunity because Android is widely used at some institutions with DSpace repositories

Will there be a Macintosh version?

- Weird question, right? Why would I want to run a mobile app on a desktop computer?

- There are unconfirmed rumors that later this year, Apple will make it possible for developers to support running iPad apps on macOS.

- If it's a small amount of work, I will do this work and we will discover whether this makes sense.

Interested? Contact me

- keith.gilbertson@vt.edu

- @krgilbertson (Twitter)

- I'm at the conference

I would appreciate help with testing and user feedback, with design, and connecting with any institutions that have DSpace repositories and may be interested in a DSpace mobile app.