

# **Apps for Chemistry**

Jignesh Bhate, Anirban Mudi Molecular Connections



## Mobility is Ubiquitous

Need chemical information anywhere, anytime



By 2013, mobile devices will overtake PCs as the most common web access device worldwide

Source : Gartner



## **Evolution of Chemical Information Delivery**

4

post-PC world





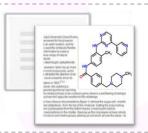
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http://www.slashgear.com/babys-first-ipad-24121114/





Source: http://www.flickr.com/photos/cristiano\_betta/



## **Growth of Chemistry Apps**

■ Read, access, calculate, draw

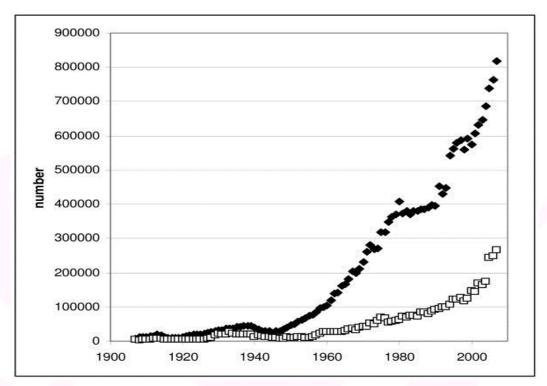
....And Many More Innovative Apps Coming up

App store search using the keyword "chemistry"

App Store	Туре	No. of Apps
Apple	iOS	398(iPad), 681 (iPhone)
Google Play	Android	> 1000



### Trend - Chemical Information Deluge



Number of articles (diamonds) and patents (open boxes) abstracted annually by *Chemical Abstracts Service*Bachrach *Journal of Cheminformatics* 2009 1:2 doi:10.1186/1758-2946-1-2

MC has a mobile app which aggregates & delivers content from 100s of news sources in multiple categories



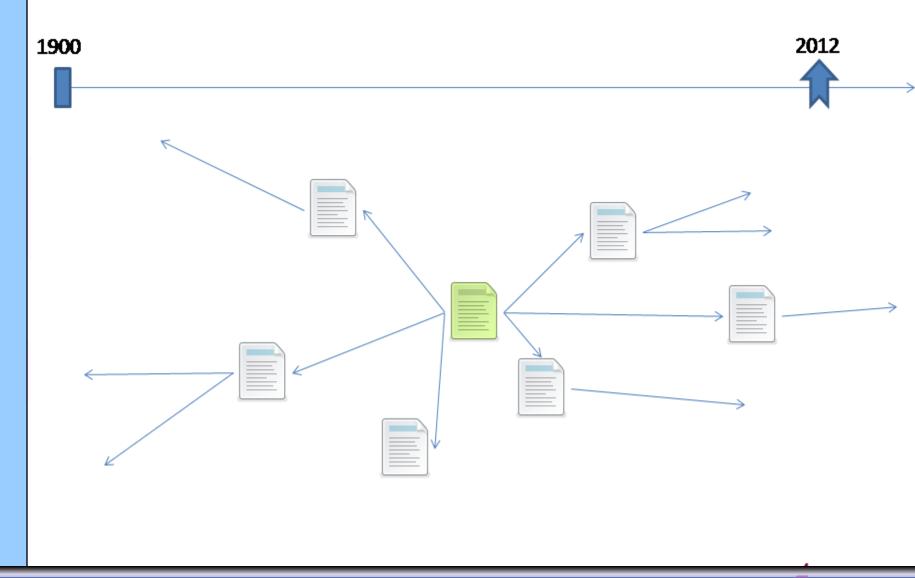
## MC Science News App

- ✓ Content aggregated from 100s of news sources
- ✓ Multiple Categories
- ✓ Ontology to automate news categorization
- ✓ Multimedia with articles
- ✓ Rich graphics & chemical structures
- ✓ Multiple share article options





## MC CiteMap App





## Trend - Augmented Reality

Over 2.5 billion Mobile Augmented Reality Apps to be installed per annum by 2017 Source - Juniper research



MC has a mobile app which displays digital content on holding a smartphone in front of the printed content



## MC Augment Print App





## Trend - Optical Structure Recognition



ChemGoggles (RSC)



Mobile Reagents (Eidogen-Sertanty)

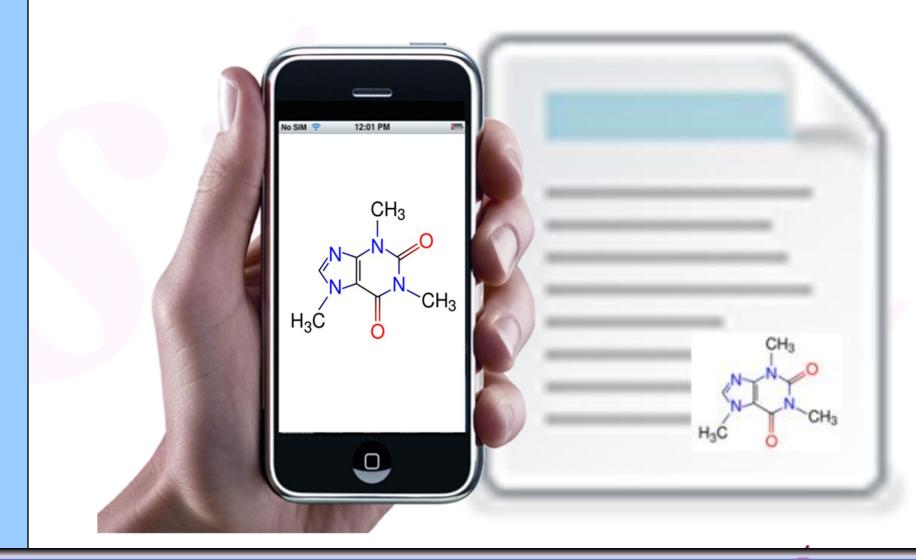


SureChem Mobile (SureChem)

Molecular Connections has a mobile app to recognize chemical structures in images.



## MC Optical Structure Recognition App





#### Trend - Use of APIs



The AskXtractor SearchAssist application provides auto-complete options for a user's search query leveraging MC's proprietary knowledgebase

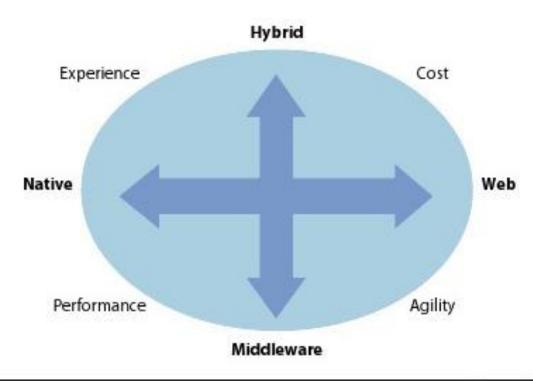


Journal Trends enables interactive visualization of trends in Elsevier journals related to keyword search by a user

These MC web apps are available via SciVerse Application Gallery



## **App Development Choices**

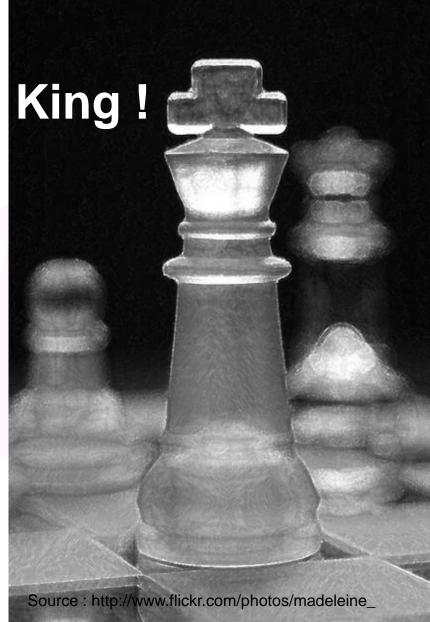


61154 Source: Forrester Research, Inc.

http://www.readwriteweb.com



## Content is Still the King!





### **Chemical Information Generation**





## Value Proposition

#### R & D PARTNERS

- New product development
- Enhancing speed to market

#### PROTOTYPE DEVELOPMENT

- Content aggregation & enrichment
- Interactive visualization & analytics
- Mobile Apps, web apps, responsive designs
- Augment print
- Mashup APIs

#### **CONTENT DEVELOPMENT**

- Excerption
- Abstraction
- Structure and Reaction drawing etc.
- Ontology development
- Semantic tagging

**INNOVATION** 

**TECHNOLOGY** 

**CONTENT** 



# Time's Up!

## **About your speaker:**

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