

# Mobile My Health Library

## Part 2

Presented by

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# Presenters

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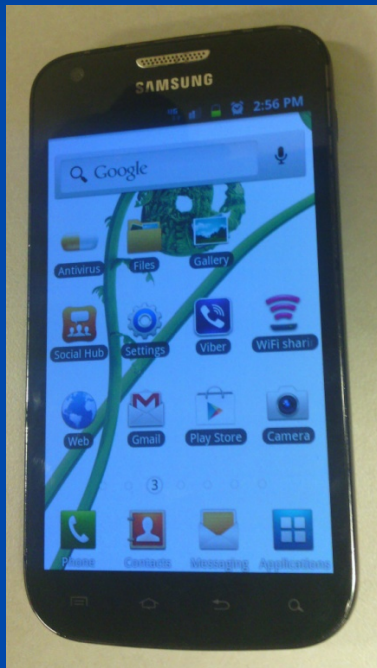


# In this Part:

- What Toronto health libraries are doing
- Initial challenges
- Keeping up with apps
- Criteria for selecting apps
- Selected apps

# Mobile Technologies in Healthcare

- Mobile tech. increasingly popular in Healthcare



# HSICT / MDTF

- Health Sciences Information Consortium of Toronto (HSICT) recognizes popularity of mobile devices and apps
- Mobile Device Task Force (MDTF) Spring 2012
- Study to be released February 2013

# MDTF Team Members

1. Miriam Ticoll
2. Jennifer Hance
3. Maria Buda
4. Gurvinder Batra
5. Ronald MacPherson
6. Pamela Richards
7. Mary Ann Howse
8. Katinka English
9. Elena Springall

# Initial Challenges

- Limited or Non-existing Connectivity
- Privacy Concerns
- Physical Barriers of Concrete and Metal
- Difficult to keep up with apps & technologies

# Keeping up with Apps

- Over 20,000 health and medical apps
- New apps released everyday
- iMedicalApps (<http://www.imedicalapps.com/>)  
for app reviews
- MDTF review of apps



# Methodology

- 104 Mobile apps were selected.
- Narrowed down to 67 based on the following criteria
  - If Link is dead
  - if the creator of an app did not seem to be to be credible at first glance
  - if content was very specific to only a few Clinicians

# Categories of Apps

Apps	Company Name	Price	Description	Platform	URL	Subject/Expertise	Subscription	Audience
Gray's Anatomy-Standard Edition	Elsevier	0.99	Contains the complete collection of 1,247 illustrations with annotations, captions, full contents list, and the	iphone	<a href="http://itunes.apple.com/us/app/grays...uo=2&amp;mt=8&amp;uo=2">http://itunes.apple.com/us/app/grays...uo=2&amp;mt=8&amp;uo=2</a>	Anatomy	No	Physician, Nurses, Students
Speed Bones Lite	Benoit Essiambre	Free	Game that tests your knowledge of bones.	iPhone, iPod touch and iPad. Requires	<a href="https://itunes.apple.com/ca/app/speed-bones-lite-quiz/id3113555">https://itunes.apple.com/ca/app/speed-bones-lite-quiz/id3113555</a>	Anatomy	No	Physician, Nurses, Students
3D Brain	Cold Spring Harbor Laboratory	Free	Touch screen allows you to rotate and zoom around 29 interactive structure and obtain information on functions, disorders, brain	iPhone, iPod touch and iPad. Requires	<a href="https://itunes.apple.com/ca/app/3d-brain/id331399332?mt=8">https://itunes.apple.com/ca/app/3d-brain/id331399332?mt=8</a>	Anatomy	No	Physician, Nurses, Students
PubSearch	deathraypizza	free	An application for medical literature searches from PubMed. Searches PubMed; display search results; sort by authors,	iOS	<a href="https://itunes.apple.com/us/app/pubsearch/id445650115?mt=12">https://itunes.apple.com/us/app/pubsearch/id445650115?mt=12</a>	Literature Search Applications	No	Physician, Nurses, Students
PubMed on Tap	ReferencesOnTap	2.99	A medical literature search tool for iPhone Searches and displays reference information from PubMed; store references in a searchable personal library; email references from within	iphone, ipad	<a href="http://www.referencesontap.com/">http://www.referencesontap.com/</a>	Literature Search Applications	No	Physician, Nurses, Students
PubMed	NIH / NLM	Free	A mobile site for searching	All	<a href="http://www.ncbi.nlm.nih.gov/pmc">http://www.ncbi.nlm.nih.gov/pmc</a>	Literature	No	Physician, Nurses,

# Criteria

## Content Review

- Credibility
- Linkage to other web resources
- Reputable company
- Currency
- Differences explained

# Criteria

## Technical Review

- Compatibility
- Connectivity
- Security

# Criteria

## Other Miscellaneous Criteria

- Cost
- Conforms to laws
- Copyright statement

# Mobile Apps Review Tool

something does not apply to an app, simply don't select the item.

## 1. Content Review

	Credibility	Other web resources linkage	Company	Current	Differences explained
Gray's Anatomy-Standard Edition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iAnatomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Speed Bones Lite	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3D Brain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PubSearch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PubMed on Tap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PubMed Mobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PubMed for Handhelds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
EBSCOhost Mobile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Johns Hopkins ABX Guide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5MCC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sanford Guide to Antimicrobial Therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Epocrates Rx for Apple iOS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
UpToDate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lab Values Pro	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lab Unit Converter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Results

- General Results of apps
- Criteria Review results
- Additional comments
- List of Top 50 Mobile Apps Based on MDTF Criteria

# General Results of apps

- Total 67 apps were reviewed
  - Highest rating was 11
  - 4.5% (n=3) apps received score of 10
  - 7.5% (n=5) apps score of 9
  - 16.4% (n=11) apps score 8



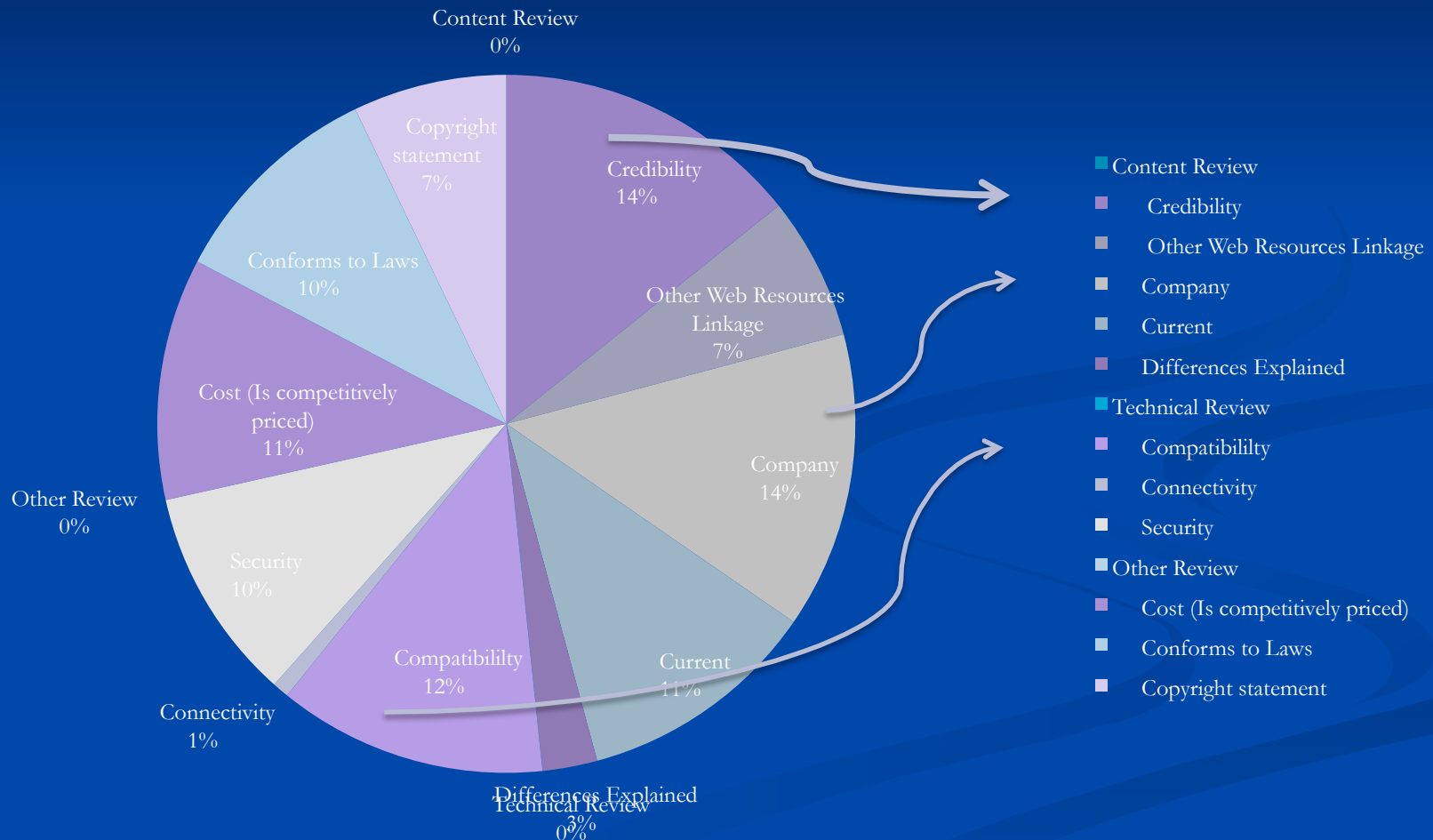
# Top Selected apps

Mobile Apps Review Tool - Summary of Responses

Review	Content Review					Technical Review			Other Review			Score	Additional Comments	
Mobile Apps	Credibility	Other web resources linkage	Company	Current	Differences explained	Compatibility	Connectivity	Security	Cost (Is competitively priced)	Conforms to laws	Copyright statement	Total	Open Ended Answer	Response Count
MedCalc	1	1	1	1	1	1	0	1	1	1	1	10		0
NLM Drug Information Portal	1	1	1	1	1	1	0	1	1	1	1	10	Tested it on my android. Very user friendly	1
TOXNET Mobile	1	1	1	1	1	1	0	1	1	1	1	10	Tried on android. Works well, great interface	1

# Criteria Review

## Percentage of Responses



# Additional comments

Name of Mobile App	Additional Comment
ABG	Really bad reviews on iTunes.
Archimedes	The 360 version is priced at \$24.95 which is 6x more expensive than other calculators.
Blausen Ear Atlas	Looked at the larger Blausen Human Atlas. Looks incredible.
Cranial Nerves Pocket Clinical Resource	Only contact info is a twitter account. No company description. No evidence or citations despite going into diagnostics. iTunes only.
Davis's Laboratory and Diagnostic Tests	\$49.95, labdxtest.com/labdxtest/ub
DizzyFIX	For use by physicians only
DrugDoses.net	No information on laws or copyright. It is not free, but reasonably priced
Epocrates	presuming was Epocrates RX was supposed to review, epocrates.com/mobile, Free
Epocrates MedMath	Expensive \$159 annual, part of an Epocrates package, not on its own
EyeChart	Apple prod only, Free, main company Web site currently down-dokcompany.com, try visiting again later, see screen shot sent to Gurvinder by e-mail.
Gray's Anatomy-Standard Edition	I did not know which Grays Anatomy-Standard edition app to review several companies have put one out.
Surgery Notebook	Couldn't find a review. No company name on official site. Only for the iPhone.
Lab Unit Converter	Iphone only, created by emergency med doctor
Lexicomp	I assumed you meant Lexicomplete?
Medscape	Can't find anything on copyright or security. I think it's left up to the user.
Netter's Atlas of Human Anatomy	Significant differences in content between iPhone & Android versions. Cost can be high (varies acc. to version) but it is a high quality resource with an impeccable pedigree.
ILM Drug Information Portal	Tested it on my android. Very user friendly
Paeds ED lite	Couldn't find a review of this app. Company site has sparse information.
Pocket Guide to Diagnostic Tests	\$44.99, unboundmedicine.com/products/pocket_guide_diagnostic_tests
PubMed for Handhelds	Fulltext links not working when I tried them the first time but subsequent attempts to use links worked
PubMed on Tap	Only available on iOS devices but compatible with other software like link resolvers and company's Bookend on Tap app
PubSearch	Only available on iOS devices but works with EZProxy
Skyscape Medical Resources App	looks good, skyscape.com/app
Skyscape's RxDrugs	skyscape.com/app/rxdrugs.aspx, Free
TOXNET Mobile	Tried on android. Works well, great interface

# List of Top 50 Mobile based on ranking

**Top 50 Mobile Apps Based on MDTF Criteria**

No	Name of App	No	Name of App	No	Name of App	No	Name of App
1	MedCalc	14	MyNetDiary Maximum	27	Epocrates	40	HazMap Mobile
2	Drug Information	15	Pocket Guide to Diagnostic Tests	28	Johns Hopkins ABX Guide	41	iAnatomy
3	TOXNET Mobile	16	PubMed on Tap	29	Medscape	42	Lexi-Denta Complete
4	KidneyDiet	17	Skyscape Medical Resources App	30	My heart & Stroke health App	43	PLoS Medicine
5	Micromedex	18	Skyscape's RxDrugs	31	PubSearch	44	Speed Bones Lite
6	Med for Hand	19	UpToDate	32	STAT!Ref Application	45	Archimedes
7	PubMed Mobile	20	ACC Pocket Guidelines	33	3D Brain	46	Current Psychiatry
8	Guide to Antimicro	21	AccessMedicine E-Books	34	AsthmaMD	47	Instant ECG interpretation Guide
9	5MCC	22	AHRQ ePSS	35	Blausen Ear Atlas	48	MedlinePlus Mobile
10	Laboratory and Dia	23	BMJ Best Practice Mobile	36	CPS Essentials	49	Mobile MIM
11	Notes Rx for App	24	Calculate	37	DizzyFIX	50	NICE Guidance
12	Lab Values Pr	25	Dynamed	38	DrugDoses.net		
13	Lexicomp	26	EBSCOhost Mobile	39	Gray's Anatomy-Standard Edition		

# List of Top 50 Mobile based on subject/ categories

Apps's Name	Subject	Apps's Name	Subject	Apps's Name	Subject	Apps's Name	Subject
Sanford Guide to Antimicrobial Therapy	Disease Diagnosis	Mobile MIM	diagnostic imaging	AccessMedicine E-Books	E-Books	ACC Pocket Guidelines	Guidelines
5MCC	Disease Diagnosis	NLM Drug Information Portal	Drug Reference	STAT!Ref Application	E-Books	NICE Guidance	Guidelines
Davis's Laboratory and Diagnostic Tests	Disease Diagnosis	TOXNET Mobile	Drug Reference	PLoS Medicine	Journal	KidneyDiet	Patient
Epocrates Rx for Apple iOS	Disease Diagnosis	Micromedex	Drug Reference	Current Psychiatry	Journal	MyNetDiary Maximum	Patient
Lab Values Pro	Disease Diagnosis	Lexicomp	Drug Reference	PubMed for Handhelds	Literature Search	My heart & Stroke health App	Patient
Pocket Guide to Diagnostic Tests	Disease Diagnosis	Skyscape's RxDrugs	Drug Reference	PubMed Mobile	Literature Search	AsthmaMD	Patient
Skyscape Medical Resources App	Disease Diagnosis	Epocrates	Drug Reference	PubMed on Tap	Literature Search	MedlinePlus Mobile	Patient
UpToDate	Disease Diagnosis	Medscape	Drug Reference	EBSCOhost Mobile	Literature Search	DizzyFIX	Disease Treatment
Johns Hopkins ABX Guide	Disease Diagnosis	CPS Essentials	Drug Reference	PubSearch	Literature Search	3D Brain	Anatomy
BMJ Best Practice Mobile	Point of Care	DrugDoses.net	Drug Reference	Blausen Ear Atlas	Medical Education	Gray's Anatomy-Standard Edition	Anatomy
Dynamed	Point of Care	MedCalc	Medical Calculator	Instant ECG interpretation Guide	Medical Education	iAnatomy	Anatomy
HazMap Mobile	Occupational Health	Calculate	Medical Calculator	AHRQ ePSS	Preventive Medicine	Speed Bones Lite	Anatomy
		Archimedes	Medical Calculator	Lexi-Dental Complete	Pharmacology & Dentistry		

# LIMITATIONS

- Purpose of App
- Feedback -Criteria / or Criteria Feedback
- App Rating bias and its implications / or App rating impacts

# Questions / Comments

## Contacts

- Questions?

- Comments?

- Contact:

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