

## Harnessing the Power of “Smart” Technology

Kevin Murphy, PhD Virtus Nutrition

Email: kmurphy@dairy1to1.com

Apps in agriculture have come a long way. Growing up in the 70’s I listened to a transistor radio jamming the Beatles while I milked cows. Now I stream classic Beatles songs via Pandora as I work on projects in the shop.



**Pandora Radio**

Pandora Media, Inc.

Category: Music

Updated: Dec 21, 2011



<http://itunes.apple.com/us/app/pandora-radio/id284035177?mt=8&ls=1>

Let’s start a little further back. What is an *app*? The *app* slang has only been around since Apple launched its App store in July 2008, but is used so much it seems like it’s been with us since the beginning of time. Applications (**apps**) are a combination of hyper-links to websites and actual free-standing programs that are used on smart phones and tablet computers, such as the iPad. There are literally hundreds of thousands of apps and they are multiplying daily. The biggest question for us is how can an *app* help me be more effective in my career, with my family, and with life in general?

The introduction of apps within the past few years is actually a tsunami that will be felt in the business world for a generation. In the past, computer programs used by businesses were large, expensive, and required extensive programming and customization. As such they were largely controlled at the board level. Requests were submitted, went through rigorous approval processes requiring extended time lines.

When approval was received programming began and part of the process was preparing the eventual users of the program for the launch. There were meetings and training sessions. Many times programs were launched to a small group (beta) to find bugs so when the entire program was released it largely did what it could do. That doesn’t mean of course it was easy to use or met with the users expectations. The user was largely ignored while the *needs* of the organization were satisfied. The cost: Thousands of dollars or more and months of time.

Enter the App! Much as the revolution in music was started in 2001 when Steve Jobs and Apple released iTunes selling single songs for \$0.99. The release of the first apps, with full user input and even better built-in instant user feedback, has completely turned the status quo business program development upside down. Now the user finds an app that will do what is needed, provides input directly to the programmer (many times a teenager building programs after school, then shares it via email, Facebook, or Twitter and it spreads virally within and outside the company. The cost: Free or \$0.99 and days or a few weeks of time.

Large companies are grappling with the shortened timelines, potential security issues, and a multitude of small app companies that have great ideas but questionable funding and follow through. They also are adapting to the speed of adoption and training the rest of the users. As an example a major revision of an inventory tracking system can be taken from

a 14 mo time period to 6 wk and the cost from \$300,000 to \$25,000. Testing is done with iPhones and Android based phones until actual dedicated scanning units are purchased and deployed. Any employee with a smart phone equipped with a free QR code reader app, a username, and password can access inventory and product information at any time in the field or in the warehouse.

What is a QR code? It is a digital signature that can contain hyperlinks, text, or numbers. These automate the arduous task of copying numbers or long url strings to access websites.



<http://itunes.apple.com/us/app/redlaser-barcode-scanner-qr/id474902001?mt=8&ls=1>

They can also be accessed and read from any computer.



<http://qrcode.kaywa.com/>

## WHERE IS AGRICULTURE IN ALL THIS?

The American farmer continues to grow food for the world and American agriculture is the most productive in the world. We have a heritage of adopting technology.

This app explosion fits that model nicely. The do more with less, faster and more cost-effectively is actually accelerating within agribusiness. In the past large companies had the funds and the people to develop the programming to increase their business. Now that the consumer/user is in control, the many small businesses within agriculture are able to respond in a nimble and efficient manner. Small business is used to having to adapt and now that they have the ability to access technology that was beyond their reach they are accessing it and very quickly integrating it into their businesses.

A bigger issue than just *There's an app for that* is how can we use these to help us?

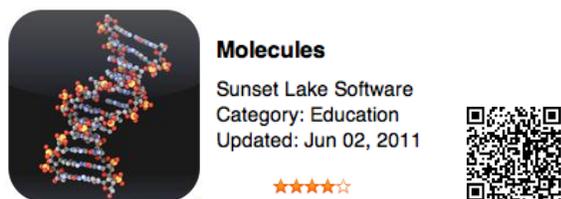
Many of the actual apps are largely hyperlinks to websites. The work is done on-line and requires an internet connection. This allows the user to access information from any device at any time. One of the first programs that I started using to help me manage my information across, computers, phones, servers, and paper folders was Evernote. The founder of the company Phil Libin launched this free program, now an app, everywhere, about four years ago. His need was to remember whatever he needed to remember, whenever, wherever. The idea is to dump everything you may ever need to or want to remember into virtual *notebooks* and then be able to recall it with a word, phrase or even a picture. This app is the first of its generation of *freemium* apps. The app is free with full user privileges. If you like it you can sign up for a paid account.



<http://itunes.apple.com/us/app/evernote/id281796108?mt=8&ls=1>

## Functionality and Interactivity

The explosion of apps and user input is only part of the overall app story. The release of the iPad in April 2010 was the beginning of a new generation of interactivity between apps, websites, and users. One of the early reviewers of the iPad called it *The iPhone for Old People*, a reference to its large screen size. While ability to use larger font size enhanced viewability, the fully enabled touch screen revolutionized computer use. In general each of us was educated to comprehend the written word on paper held at a 10 to 30° angle. The use of computers and recently the push to be *green* and not print paper has created lowered comprehension when viewing parts of pages on a screen, at 70 to 90° angles. The iPad changed all that. It allows full page viewing, as well as annotating, much like on paper. Beyond that the old adage that *A picture is worth a thousand words* comes into play. With the iPad the user can see and manipulate full images for realistic views and even 3-D imaging. One of the first apps released that uses this realistic imaging is *Molecules*. This app gives a full view of the usage of iPad and other tablet devices as teaching tools.



<http://itunes.apple.com/us/app/molecules/id284943090?mt=8&ls=1>

The Virtus Nutrition journey with the Apple app store began in early May 2010. We were given the charge to program an app and have it ready to release for World Dairy Expo in Madison, WI in Oct 2010. The app is a combination of product information, scientific review, and a benefit spreadsheet. The salespeople used all three in the field

and gave their ideas on what worked best for them. The adoption of the Virtus Nutrition app and its effect in the marketplace have been astounding. With the short time line we had to get the app to the field there was no pre-training or pre-meetings for the field salespeople on the iPad or before we published the app. We actually did a *training* session for 15 min before the show opened the first day. Sales personnel were given a quick tour of the iPad and the app. Within minutes of the show opening our salespeople were engaging leads in discussions utilizing the iPad and navigating through the app. As stated earlier the ease of use and speed to market driven by user input has proven successful for us.



**Virtus**

MC Solutions

Category: Business

Updated: Oct 03, 2011



<http://itunes.apple.com/us/app/virtus/id393482787?mt=8&ls=1>

When approached from the user perspective the interactivity helps increase retention and even bring more believability to data presentation. These devices, whether it be an iPhone, Android phone, iPad, or other tablet device do have limitations. They are meant for consumption of audio, pictures, video and data. When it comes to generation of data (including this paper) it can be tedious at best. To answer this limitation several apps with advanced voice to text recognition have been developed. One is **Dragon**. The program has been around for at least 12 yr, starting with an early Windows-based version. The increase in chip speed and memory capacity has made it usable (part of this paper was recorded with Dragon on an

iPhone.) There are specialty database versions available such as a medical terminology database and the program *learns* your voice and also *remembers* words that you use often. With continued use it can provide a virtually error free voice to text experience.



<http://itunes.apple.com/us/app/dragon-dictation/id341446764?mt=8&ls=1>

One of the futuristic ideas is to be able to speak to someone in your native language and have the person understand in their native language. The Google Translate app is coming closer to making this a reality. We have used Google translate in a browser for almost five years to help with our international order processes. Now the voice feature is becoming powerful enough to actually communicate, at least on a limited basis. There still are regional dialects and verbatim translations that can be humorous or embarrassing when it's relied on too heavily.

As more apps are developed it allows each of us to access needed information and find ways to make us more effective. The end game for all this, better quality of life....or 24/7 with no down time. Each of us can make that decision. Some things never change.

Following are a list of apps with a short description. Give some a try. When it comes to adapting mobile devices to our business the word is, **flexible**. Be open to trying and discovering what can make you more effective....You can even milk a cow or pen sheep.



<http://itunes.apple.com/us/app/milk-the-cow/id450733533?mt=8&ls=1>



**Extreme Sheepdog Trials HD Lite Edition**

Green Custard Ltd.  
Category: Games  
Updated: Oct 07, 2011

★★★★☆



<http://itunes.apple.com/us/app/extreme-sheepdog-trials-hd/id376186595?mt=8&ls=1>

**Cattle On Feed**

Hi-Plains Systems, Inc.  
Category: Productivity  
Updated: Sep 22, 2010

★★★★★



<http://itunes.apple.com/us/app/cattle-on-feed/id322342179?mt=8&ls=1>



**iCattleLog**

iSimpleTypeApp  
Category: Productivity  
Updated: Oct 07, 2011

★★★★☆



<http://itunes.apple.com/us/app/icattlelog/id435805953?mt=8&ls=1>



**iRodeo - Crazy Bull Riding**

Devsisters  
Category: Games  
Updated: Oct 12, 2011

★★★★☆



<http://itunes.apple.com/us/app/irodeo-crazy-bull-riding/id317985464?mt=8&ls=1>



**FlightAware Flight Tracker**

FlightAware  
Category: Travel  
Updated: Sep 26, 2011

★★★★☆



<http://itunes.apple.com/us/app/flightaware-flight-tracker/id316793974?mt=8&ls=1>



**GoodReader for iPad**

Good.iWare Ltd.  
Category: Productivity  
Updated: Jan 07, 2012

★★★★★



<http://itunes.apple.com/us/app/goodreader-for-ipad/id363448914?mt=8&ls=1>



**Yelp**

Yelp  
Category: Travel  
Updated: Dec 19, 2011

★★★★★



<http://itunes.apple.com/us/app/yelp/id284910350?mt=8&ls=1>



**Triplt - Travel Organizer - FREE**

Triplt  
Category: Travel  
Updated: Nov 30, 2011

★★★★★



<http://itunes.apple.com/us/app/tripit-travel-organizer-free/id311035142?mt=8&ls=1>



**Instapaper**

Marco Arment  
Category: News  
Updated: Oct 27, 2011

★★★★★



<http://itunes.apple.com/us/app/instapaper/id288545208?mt=8&ls=1>



**Flipboard**

Flipboard Inc.  
Category: News  
Updated: Jan 04, 2012

★★★★★



<http://itunes.apple.com/us/app/flipboard/id358801284?mt=8&ls=1>



**StockTouch**

Visible Market Inc.  
Category: Finance  
Updated: Nov 10, 2011

★★★★★

52 Ratings

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<http://itunes.apple.com/us/app/stocktouch/id445170859?mt=8&ls=1>



**SugarSync**

SugarSync, Inc.  
Category: Productivity  
Updated: Jan 04, 2012

★★★★★

94 Ratings

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<http://itunes.apple.com/us/app/sugarsync/id288491637?mt=8&ls=1>



**ForeFlight Mobile Aviation Weather, Flight Planning, EFB, and Charts**

ForeFlight  
Category: Weather  
Updated: Dec 08, 2011

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<http://itunes.apple.com/us/app/foreflight-mobile-aviation/id333252638?mt=8&ls=1>

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**MotionX GPS Drive HD**

MotionX™  
Category: Navigation  
Updated: Nov 03, 2011

★★★★★

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<http://itunes.apple.com/us/app/motionx-gps-drive-hd/id367898276?mt=8&ls=1>



<http://itunes.apple.com/us/app/dtn-the-progressive-farmer/id404268539?mt=8&ls=1>



**JotNot Scanner Pro**

MobiTech 3000 LLC  
Category: Business  
Updated: Dec 22, 2011

★★★★★

154 Ratings

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<http://itunes.apple.com/us/app/jotnot-scanner-pro/id307868751?mt=8&ls=1>



**Kindle – Read Books, Magazines & More – Over 1 Million eBooks & Newspapers**

AMZN Mobile LLC  
Category: Books  
Updated: Dec 21, 2011

★★★★★

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<http://itunes.apple.com/us/app/id302584613?mt=8&ls=1>



**Google Translate**

Google  
Category: Reference  
Updated: Jan 05, 2012

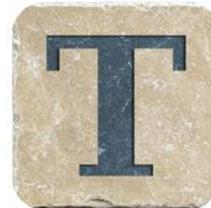
★★★★★

196 Ratings

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<http://itunes.apple.com/us/app/google-translate/id414706506?mt=8&ls=1>



**Tablistio**

Yellowmind  
Category: Books  
Updated: May 25, 2011

★★★★★

5 Ratings

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**Pat LaFrieda's Big App for Meat**

Zero Point Zero  
Category: Lifestyle  
Updated: Dec 21, 2011

★★★★★

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Game Center

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<http://itunes.apple.com/us/app/tablistio/id408396667?mt=8&ls=1>



<http://itunes.apple.com/us/app/pat-lafriedas-big-app-for-meat/id479336856?mt=8&ls=1>



**kooaba Déjà Vu**

kooaba  
Category: Photo & Video  
Updated: Nov 24, 2011

★★★★★

5 Ratings

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<http://itunes.apple.com/us/app/kooaba-deja-vu/id453240496?mt=8&ls=1>



**DTN/The Progressive Farmer: Agriculture News, Markets an**

Telvent DTN, Inc.  
Category: News  
Updated: May 12, 2011

★★★★★

28 Ratings

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