Scan and Learn: QR Codes
in the Florida Botanical Gardens

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The objective of this project was to create a system that uses Quick Response (QR) codes to increase knowledge gain by visitors to the Florida Botanical Gardens. QR codes are two-dimensional barcodes that may contain virtually any kind of data, including links to websites, text, videos, etc. These QR codes were placed on existing botanical signs in the Gardens. The QR codes can be scanned by visitors' mobile devices, which link them to an online resource for further information, such as a University of Florida publication or website. First, a suitable QR code generator was chosen. The chosen generator is free and creates traceable codes that record which codes are being scanned and how often. Next, a team of Master Gardener volunteers created a database of existing signs and coordinating documents and websites. Finally, the team worked together to create the QR codes, which were then printed on heavy-duty, waterproof, UV-resistant, adhesive paper for installation on signs. The results include a database of botanical signs in the Florida Botanical Gardens and QR codes for those that link to University of Florida publications. These codes were installed in the spring of 2012 and have been scanned over 1300 times. We have concluded that QR codes are very flexible, easy to create, simple to track, and therefore could be applied to any demonstration landscape to educate visitors.

Objective

The objective of this project was to create a system that uses Quick Response (QR) codes to increase knowledge gain by visitors to the Florida Botanical Gardens. QR codes are two-dimensional barcodes that may contain virtually any kind of data, including links to websites, text, videos, etc. These QR codes were placed on existing botanical signs in the gardens (Fig. 1). The QR codes can be scanned by visitors' mobile devices, which link them to an online resource for further information, such as a University of Florida publication or website. The Florida Botanical Gardens are part of a Pinellas County park that is open 7 d per week and opens earlier and closes later than the Extension office. Including these codes on the botanical signs in the gardens allows us to extend the reach of the University of Florida Institute of Food and Agricultural Sciences (IFAS) Extension research-based information to those who visit after hours and on weekends.

Method

First, a suitable QR code generator was chosen. The chosen generator is free and creates traceable codes that record which codes are being scanned and how often. This allows us to track which fact sheets are being accessed and at what rate. Next, a team of Master Gardener volunteers created a database of existing signs and coordinating documents and websites. Finally, the team worked together to create the QR codes. This involved entering the website address into the QR code generator for each fact sheet or website. The codes created are graphic files that we saved on our network and then placed on a grid for printing. They were

Fig. 1. A photo of one of the QR codes on a botanical sign in the Florida Botanical Gardens.

then printed on heavy-duty, waterproof, UV-resistant, adhesive paper for installation on signs. We did this using the office laser printer. A poster that explains QR codes, how they work, and where to find them in the gardens was also created as part of this project (Fig. 2). The poster is displayed in our lobby and in other locations throughout the gardens.

Results

The results include a database of botanical signs in the Florida Botanical Gardens and QR codes for those that link to University

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Fig. 2. An image of the instructional poster created for the QR code project.

of Florida IFAS publications. These codes were installed in the spring of 2012 and have been scanned over 1300 times. We can review the codes scanned to see which plants or topics are of the most interest to our visitors. These codes allow us to make University of Florida IFAS Extension information available to the Florida Botanical gardens visitors even during times when the Extension office is closed.

Conclusions

We have concluded that QR codes are very flexible, easy to create, simple to track, and therefore could be applied to any demonstration landscape to educate visitors. With a minimal investment a team of faculty, staff, and/or volunteers could create a lasting educational feature that would extend the educational reach of the facility. There are many other features this can be used for, including QR codes that link the user to short video clips that instruct, or even serve as a self-guided tour of a demonstration garden. These links will be the next phase of our QR code project.