



iPhone Application Programming

Lab 4: Integration



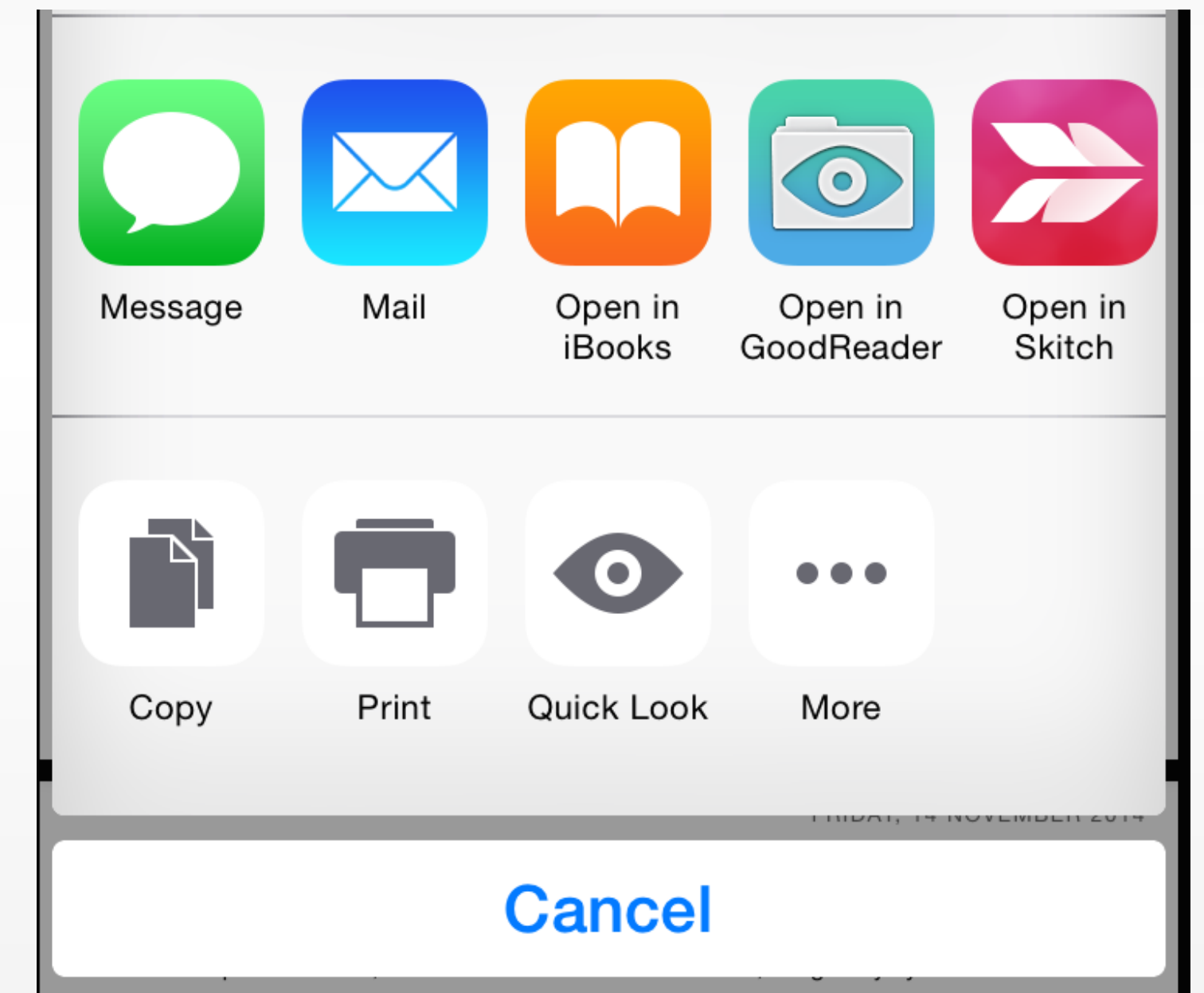
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<http://hci.rwth-aachen.de/iphone>

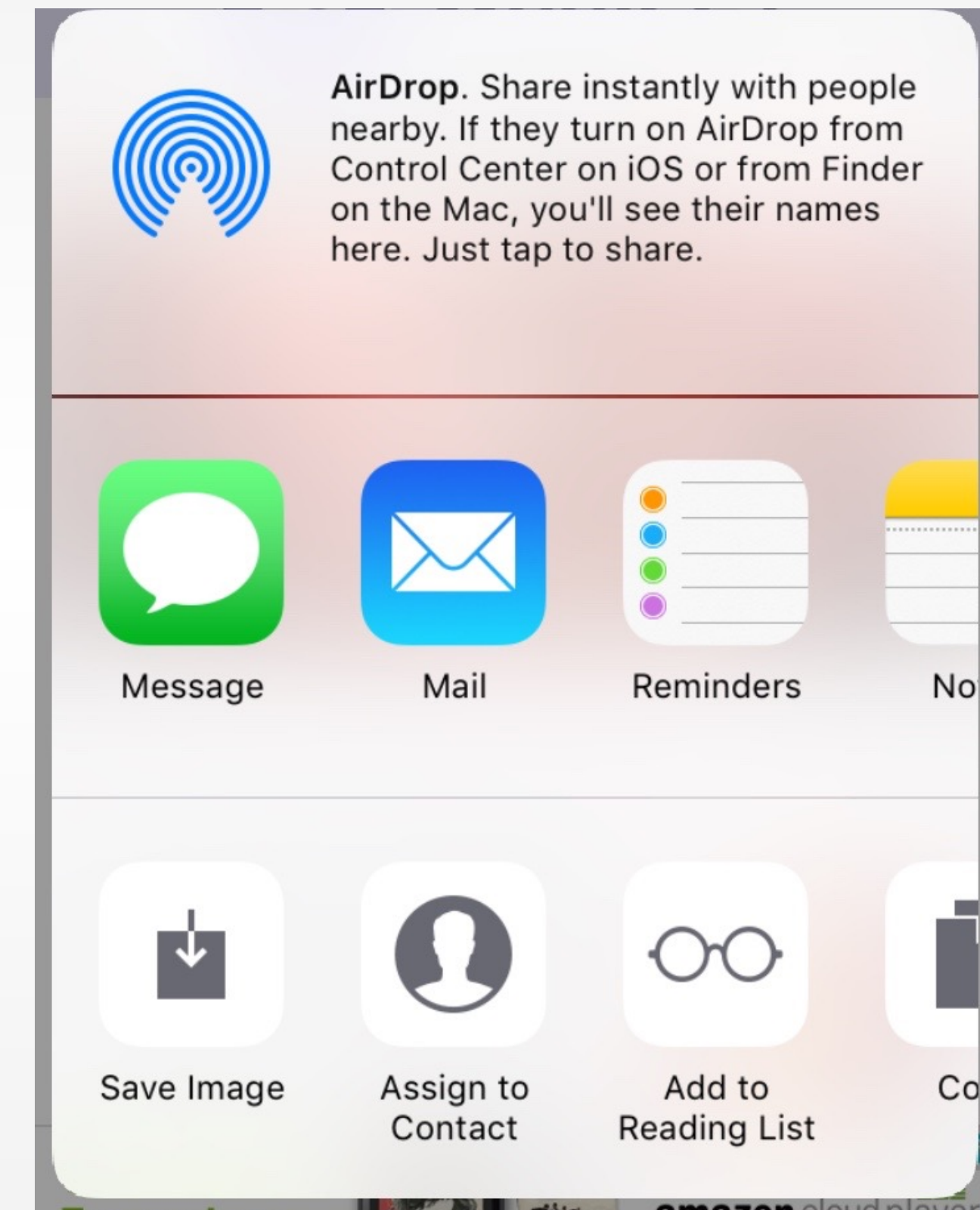
Previewing Files in Other Apps

- UIDocumentInteractionController and UIDocumentInteractionControllerDelegate
- Provides in-app support for managing user interactions with files
- The controller helps present an appropriate user interface for previewing, opening, copying, or printing a specified file
- The delegate notifies you of user actions, .e.g., dismissing the preview
- In your app's Info.plist, you can add a list of file types that your app can open to show up in the this controller's menu



Sharing with iOS

- `UIActivityViewController`, automatically determines the best way to share content based on its type
 - via iMessage, email, Facebook, Twitter, saving the image to the photo library, assigning it to contact, printing it out via AirPrint, etc.
- Takes array of items to share and array of app services (can be empty)
- An app service takes items that are passed, does something to these items, and returns the results, e.g., open file in
- Subclass `UIActivity` class in order to implement application-specific services
 - Two type: Action, Share
- Can exclude some activities from appearing in the popup/action sheet

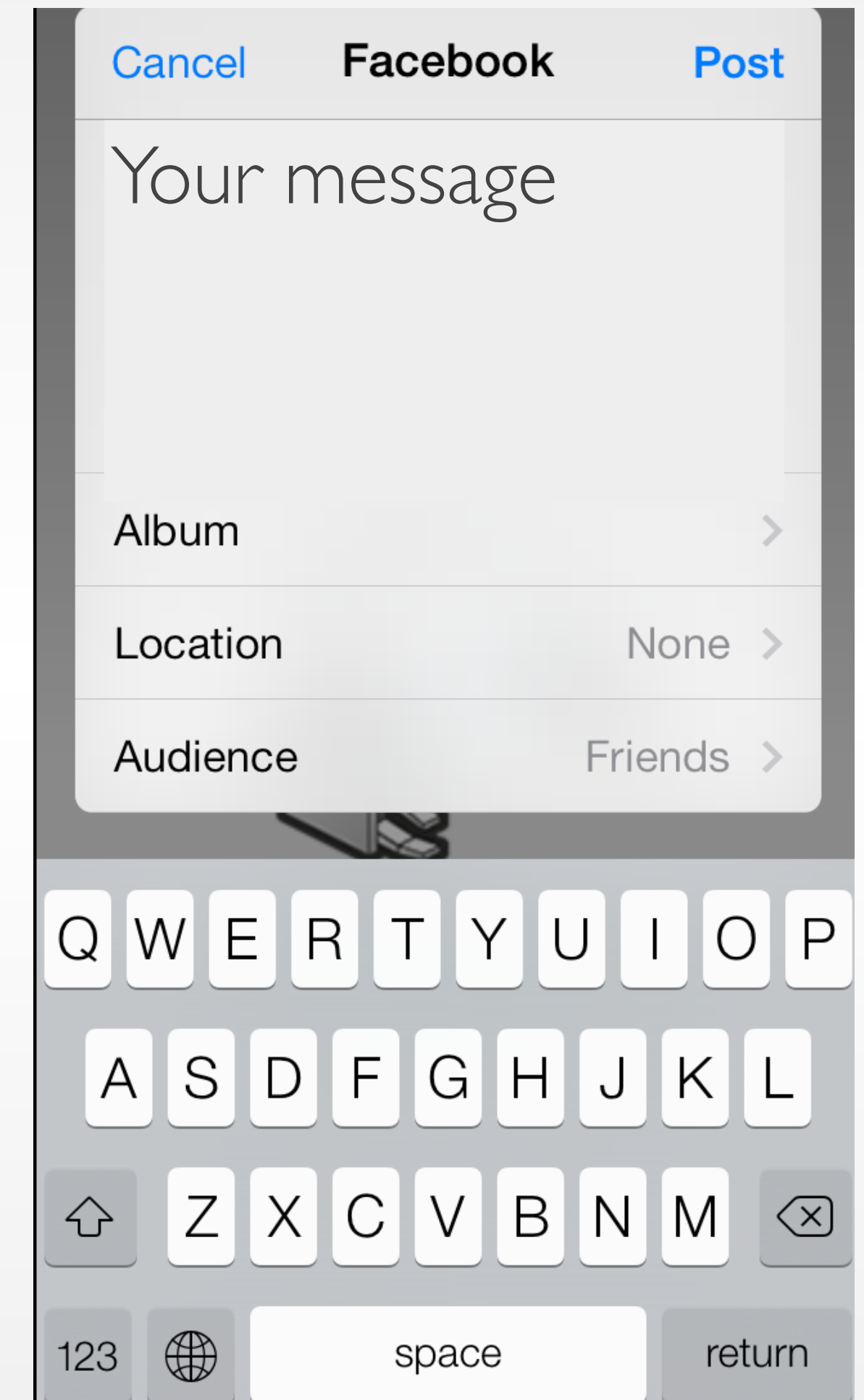


Web Rendering

- WebKit framework. WKWebView. WKNavigationDelegate (all optional methods).
- WKWebView has better performance than UIWebView (until iOS 8). With Nitro Javascript engine WKWebView has the same performance as Safari app
- Takes a NSURLRequest
- Provides information for tracking the loading progress, user navigation actions, navigation type to allow for policy decisions
- Provides a way to post JavaScript messages and user scripts into a web view

Social Sharing

- Social framework
- SLComposeViewController
- Post to social networks like Facebook and Twitter
- Unlike in UIActivityController the user is immediately asked to enter their tweet or Facebook post without having to select an activity before



Access to Camera and Photo Library

- UIImagePickerController
- Select an image from camera to import into an app or take a new image
- Image sources: SavedPhotosAlbum, PhotoLibrary, and Camera (only available on devices not simulator)
- Can choose capture mode (photo/video) and presentation style
- Asks the user whether the app can access her photos
- Must conform to both UIImagePickerControllerDelegate (2 methods image selected/cancelled) and UINavigationControllerDelegate (no need to implement anything)
- In delegate method you receive the image original or edited (cropped image if you set allowsEditing), media type, media url, etc.
- In both delegate methods you need dismiss the controller

Contacts

- Contacts UI framework and Contacts framework (new in iOS 9 replacing of AddressBook and AddressBook UI)
- CNContactPickerViewController, CNContactPickerDelegate (all optional methods)
- Import, show, select, modify, search, and save contacts
- Single contact is CNContact: name, email, phone, birthday, job, social accounts (CNSocialProfile), CNInstantMessageAddress. To create a new contacts use CNMutableContact
- Contacts database CNContactStore, CNSaveRequest to store a new contact
- Asks the user for access privileges

A05 Instagram

- Part 1: Analyze UI
- Part 2: Data model
- Part 3: Prepare default data
- Part 4: Implement main view
- Part 5: Implement comments view
- Part 6: Store data
- Part 7: Challenge yourself