AN APP FOR THAT:
DESIGNING THE SMALL AND THE MANY

BUS 355/555/555P/555E/555M

FALL 2011

PROFESSOR BENN KONSYNSKI
1 GENERAL INFORMATION

1.1 LOGISTICS
Course Time Mondays, 6:30 pm
Location W 330, GBS

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2 COURSE PROFILE

Several trends indicate emerging opportunities and possibilities:

- Democratic access to the internet has opened the door to democratic production - witness the rise of social networking.
- Social media raises the opportunity for production, and proliferation, of applications - in the form of apps, widgets, gizmos, etc.
- Whether original functions or content, or syndicated content and services - production of applications is now possible for all.

This "snack-sizing" of applications is changing the landscape of both consumer and enterprise systems. This course engages in new software/service environments. With the assistance and experience of actual app developers, we explore the design and creations of these "snack-size" applications for mobile and desktop environments. The course will consider the opportunities for new patterns of communication between organizations and their mobile stakeholders amidst an emerging mobile reality of commerce and society.

This will be a workshop/project-oriented course and participants will work on themed projects in app development, including work with the Emory Communications, Halle Institute, and other Emory schools and centers. We will consider living cases from many SOBs (Students of Benn) - Zeezor, Mangia, Smule, Enablus, Kenworthy, . . .

This course will consider the design, development, distribution, pricing and performance of the app-cosystem. We will engage in three perspectives

- Technology/Design - plan, build, analyze, and review app projects
- Domain - consider connection, content and context of the domain
- User Interface - graphics, content, navigation and experience
# Course Overview

This course will explore issues associated with the emerging forms of *applications and services* changing software ecosystems and commerce interactions. We will involve both design and development of real apps, gizmos, widgets, . . . with a focus on Android and iPhone/iPad ecosystems. This course will enable students to learn the design, development and distribution of the small & the many and leave with a portfolio, not just a certificate.

## Schedule

This is an overview of the planned schedule. More detailed and up to date information will be provided online via First Class.

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<th>Session Title</th>
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<td>Getting Started</td>
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<td>I</td>
<td>29 August</td>
<td>App-natomy 101</td>
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<td>II</td>
<td>12 September</td>
<td>The Planet of The Apps</td>
<td>Project 2</td>
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<td>II</td>
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<td>IV</td>
<td>17 October</td>
<td>Carrier Wars</td>
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<td>V</td>
<td>24 October</td>
<td>Putting the App in Apple</td>
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<td>VI</td>
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<td>To App or Not to App</td>
<td>Project 3</td>
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<td>VII</td>
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<td>Just-ticulate</td>
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<td>14 November</td>
<td>A Price for That</td>
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<td>IX</td>
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<td>Location, Location, Location</td>
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<td>X</td>
<td>28 November</td>
<td>A Map for That</td>
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<tr>
<td>XI</td>
<td>05 December</td>
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<td>XII</td>
<td>12 December</td>
<td>Presentations</td>
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3.2 COURSE MATERIAL
1. Selected chapters from various books and selected whitepapers and articles from journals, magazines and newspapers. Available as handouts (mostly online).
2. Most of the course handouts will be available on the FirstClass course conference.
3. Recommended reading material will also be posted for additional, optional readings.

3.3 SUGGESTED REFERENCE MATERIAL
There are several online sources and books that participants may choose to refer. Below is an indicative list of resources. Participants are encouraged to share other sources that they find useful on the FirstClass course conference.

3.3.1 ANDROID APP DEVELOPMENT RESOURCES
3. Android Application Development For Dummies (ISBN-10: 047077018X)

3.3.2 IOS APP DEVELOPMENT
2. Beginning iPhone 4 Development: Exploring the iOS SDK (ISBN-10: 143023024X)
3.4  Projects

An inventory of possible projects, from university and other resources, has been lined up for this course. These projects provide a domain (and user) expertise. We will target four projects – one easy, one moderate, one complex and one “ambitious”. Participants will choose their moderate and complex projects from this inventory.

Though the emphasis will be on design and commercial deployment issues, a little authoring will be required. A number of professional app development companies, located in Atlanta and the west coast, have volunteered time and expertise to assist with these efforts.

Projects will be presented and evaluated in class. We will have the domain experts, app developers and the market itself (app stores) to support our evaluation. We will have some venture folks also to serve in review.

3.4.1  Project 1: App-ize an RSS Feed

For this simple project, participants will convert an RSS feed of their choice into an App. This App is due at the end of Session 1 on August 29.

3.4.2  Project 2: Skin a Common Data Source

Teams will design a skin for a common data source. The data source will be announced through the FirstClass conference and in class. This App is due in Session 2 on September 12.

3.4.3  Project 3: Design / Develop an App for University User

In this complex project, teams will experience the design / development of an app for a customer. Each team will address the requirements of a user from the university. This App is due by Session 6 on October 31.
3.4.4 Project 4: Knock Us Off Our Apps!

This project is expected to be the pièce de résistance of the class. Teams will design / develop a highly ambitious App and present it to the class in sessions 11 and 12 on December 5 and 12.

3.5 Class Participation & Contribution

1. Our course is not a spectator sport - preparation and active participation are essential. Though no heavy tech skills required, individuals should not become visibly ill if confronted by Objective C code, be self-motivated and be willing to work in a workshop/project-oriented setting. Participation in our online forums (FirstClass) is also necessary.

2. Participants’ contributions towards the class are critical to our course. The role of the professor will be mostly of “player coach”. A number of sessions will involve student team presentations of designs and status review. Teams will also represent analysis of the issues in the markets (carriers, pricing, distribution, rights, security, privacy, etc.). “Players” will also have a key role to play in sharing their learning on development, design and deployment issues. Contributions to the class and contributions to other participants by providing constructive feedback and support to other projects will be a key means of performance assessment.

3. We treat our sessions as a business meeting - we will start on time and try to end on time; if you are unable to attend a session, please let me know not to expect you. **No exit or entrance is permitted during class sessions unless pre-arranged.**

4. We will have many guest speakers and “living cases” for discussion during this class. Please be courteous to our guests. We have some great resources to draw on.

3.6 Technology Requirements

Though app development is only one component of the class, it is an important one. Students remember what they do. In the past, application development was a complex activity with a high overhead. Not anymore. The products of this class will be useful artifacts that will be an important
part of students’ personal portfolio as they proceed on their career development. We are not a vocational institution, but this element of practice will help the students understand the evolving technology space and new possibilities. We will set up teams of three – outside of simple app development tools, at least one of your team members should have the capability to run the relevant SDK (System Development Kit). We will develop for, at least, the Android, iPhone and iPad platforms. This currently means Windows platform for the Android SDK and Mac OS for the iOS SDK (iPhone and iPad).

### 3.7 GRADING

<table>
<thead>
<tr>
<th>Segment</th>
<th>Weight</th>
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<tr>
<td>Project 1: App-ize an RSS Feed</td>
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<td>Project 2: Skin a Common Data Source</td>
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<td>Project 3: Design / Develop an App</td>
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<tr>
<td>Project 4: Knock us off our Apps!</td>
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<tr>
<td>Participation &amp; Contribution</td>
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### 3.8 OFFICE HOURS

Office hours are by appointment only – often online for email or Skype access. Feel free to email the professor or associates to schedule an appointment.

### 3.9 HONOR CODE

There are many information sources on the Net. The ground rules for the use of Internet information and the honor code for this course is obvious. Attribute all sources including web sources. Do not plagiarize papers or reports, and do not submit the same paper to multiple courses. Also all handouts, exams and materials that will be provided in secure areas of this server are for your own personal class use. These materials should not be reproduced or distributed in electronic media at other sites.
4 PROSPECTIVE SPEAKERS

During the course, we will be addressed by guests representing different interests within the App ecosystem. We will consider several living cases, app developers, carriers, platforms and app stores. The exact order of guests will be announced during the semester. Some prospective speakers include:

1. Jami Becker (Nomad Candy)
2. Shelley Saxena & Venus Desai (ITAnyPlace)
3. Michael Morrissey (Google)
4. Michael Flood (Kajeet)
5. Cedric Rogers (Apple)
6. Walt Rivenbark (AT&T)
7. Andy Williams (Enablus)
8. Steven Elliot (Sapient)
9. Michael Tavani (Scoutmob)
10. Jeff Smith (Smule)
11. Stacey Kenworthy (Applianceware)
12. Jeff Haynie (Appcelerator)
13. Jim Kelly
14. Dan Homrich (Smartsoft Mobile Solutions)
15. Darrell Knight (Clipzone)
16. Kim Sammartano (Whoop)
5 SESSION DETAILS

5.1 APP-NATOMY 101

In this initial session, we will discuss different perspectives on Apps. We will discuss what is an App and gain a hands on experience of building an App. By the end of this session, each of us will have developed our own RSS App!

Segment 1: What is an App?
Segment 2: Guest Speaker
Segment 3: Project 1 Exercise

Prepare: Install & explore the SDK of your choice (Android / iOS / Windows Phone)

Deliverable: Project 1 and Team Details

5.2 AN APP WORLD

In this session, we will try to understand the historical perspective of snack sized applications and discuss Widgets - the original desktop Apps and this form of “persistence technologies.”

Segment 1: Guest Speaker
Segment 2: Wither the Widget
Segment 3: Demonstration of Project 2 and early experiences with the SDKs

Deliverable: Project 2
5.3 PLANET OF THE APPS

We will further explore the world of apps and the key elements of the app environment. We will take a deep dive into the anatomy of Apps and explore the nuances of what makes an App an App.

Segment 1: Guest Speaker
Segment 2: Rise of the Apps
Segment 3: Pitches from Emory App prospects and review of early work with SDKs

5.4 APP-VOLUTION

In this session we will consider the evolution of Apps and the changes witnessed in the short lifespan of this market. We will hear from different teams about their progress and the difficulties they have faced. We will also examine different development techniques and issues.

Segment 1: Guest Speaker
Segment 2: Evolution of Apps
Segment 3: Pitches from Emory App prospects and review of AppMakr and App Inventor environments

5.5 APP-OLLOGY

Apps do not live in isolation. In this session we will discover the environment that enables the propagation of apps. The emergence of app marketplaces and trends toward free markets of developers and app consumers.

Segment 1: Guest Speaker
Segment 2: App-ology
Segment 3: Project progress and app reviews
5.6 CARRIER WARS

Telecom operators are a major stakeholder in the App world. We will try to wrap our minds around the perspective of the carriers, special services, APIs and ways to monetize app services.

Segment 1: Guest Speaker
Segment 2: Carrier Wars
Segment 3: Project progress and app reviews

5.7 PUTTING THE APP IN APPLE

Apple has been a leader in the smartphone and new tablet movements. We will look at directions and possibilities. We will also examine the strategic decisions that have raised controversy in shaping the app markets.

Segment 1: Guest Speaker
Segment 2: Putting the App in Apple
Segment 3: Projects and Reviews
Deliverable: Project 3

5.8 TO APP OR NOT TO APP

What functionalities lend themselves to an App format? When do we App-ize an application? What is added to an application’s feature set when it is converted into an App? We will address these and similar questions in this session.

Segment 1: Guest Speaker
Segment 2: To App or Not to App
Segment 3: Project Progress, Demonstrations and Reviews
5.9  **JUST-TICULATE**

In this session, we will consider the rise of gesture based navigation. We will ponder the future possibilities that may arise from these advances.

**Segment 1:** Guest Speaker

**Segment 2:** Just-ticulate: Rise of Gesture Based Navigation

**Segment 3:** Project Progress, Demonstrations and Reviews

5.10 **A PRICE FOR THAT**

Pricing decisions are always critical. In the App world, pricing is a strategic and tactical decision. Pricing begins with initial pricing and leads to strategies to shift price to exploit or create demand. In these markets, experiments are possible.

**Segment 1:** Guest Speaker

**Segment 2:** A Price for That

**Segment 3:** Project Progress, Demonstrations and Reviews

5.11 **LOCATION**

This session will focus on location-based services, deal-a-day, crowd sourcing, and other forums that are based on narrowing, time, location and commitment.

**Segment 1:** Guest Speaker

**Segment 2:** Location, Location, Location

**Segment 3:** Project Progress, Demonstrations and Reviews
5.12 A MAP FOR THAT

GPS, cellular triangulation and accelerometers, change the location landscape. New forms of Geographic information systems (GIS) and new approaches to maps and mashups make new services possible.

Segment 1: Guest Speakers

Segment 2: A Map for That

Segment 3: Project Progress, Demonstrations and Reviews

5.13 PRESENTATIONS

In this session, teams will present Project 4.

5.14 PRESENTATIONS

In this session, teams will present Project 1, and we will recognize leading projects.
## 6. Course Outline

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<td>An App World</td>
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<td>III</td>
<td>Planet of the Apps</td>
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<td>IV</td>
<td>App-volution</td>
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<td>V</td>
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<td>Fall Break</td>
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<td>Guest Speaker</td>
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<td>IX</td>
<td>Just-ticulate</td>
<td>Guest Speaker</td>
<td>Just-ticulate: Rise of Gesture Based Navigation</td>
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<td>X</td>
<td>A Price for That</td>
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<td>A Price for That</td>
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<td>XI</td>
<td>Location</td>
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