

Android Apps Implementation for Conference Navigator 3 Report

INFSCI 2950 Independent Study: System

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INTRODUCTION

This report is about all the works related to Android app of CN3 we did during this summer. It contains a brief introduction of CN3 and techniques that being used through developing process. The regular routine of developing each single conference is also discussed in detail in this report. Since this project is a long-term one due to its excellent compatibility for almost every conferences that been hold in coming years, there are still a lot of jobs need to be done in future. At the bottom of this report, limitations and future works were presented.

This project is a course job in Independent Study at summer semester. Dr. Peter and Xidao Wen give us a lot of instructions during this period.

CONFERENCE NAVIGATOR 3 (CN3)

Conference Navigator (<http://halley.exp.sis.pitt.edu/cn3/portalindex.php>) is a personal conference scheduling tool with social linking and recommendation features. Users can control access to their information in Conference Navigator. It provides easy accesses to conferences such as UMAP, Hypertext, i-KNOW, etc. People who attend or have interest in those conferences could find themes, schedules, hold places and other relative information via Conference Navigator. In order to provide users more convenient access, we also developed mobile version of Conference Navigator. Users can download apps named by current conference from app stores (we have Apple and Android versions currently).

Conference Navigator is focused on academic conferences. Thus, users can find relative papers, author information on Conference Navigator. With these useful hyperlinks, users can get well prepared on those sessions that they want to attend and study deeper on those topics.

There are five fields of conferences on Conference Navigator, below is a list of them.

First is User Modeling & Personalization, which contains UMAP, Adaptive Hypermedia.

Second is Internet, World Wide Web & Networks, which contains Hypertext and CSCW.

Third is Technology and Education, which contains i-KNOW, EC-TEL, EDM & AIED and LAK.

Forth is Library & Information Sciences, which contains iConference and ASIS&T.

Fifth is Telecommunications & Policy, which contains TPRC (All capital letters represent names of conferences).

There are hyperlinks to each of these conferences. Conference Navigator keeps links to previous conferences as well so that users can visit websites of conferences taken place years ago.

Conference Navigator is supported by the National Science Foundation (NSF).

TECHNIQUE

Overview

We are working on data updates and programming part of Conference Navigator's Android version.

Below are technics that have been used in our program.

- Android Develop Kit (ADT) including AVD (Android Virtual Device)
- Navicat Premium
- Java Develop kit (JDK)
- Photoshop CS6

Details

Technique details would be discussed in terms of frontend and backend. Things would only been discussed in aspect of technique. The exactly work we did during summer will be stated in next part.

Frontend

The frontend of this app is designed by the original developer. As things change, we made some improvements on previous fronted design.

Graphic design

Every conference has its own logo and theme. It is important to change the graphic design when we were serving a new conference. The designing part of this project is done by professionals in other group. It usually contains three parts: logo, background and icon.

Xidao Wen sent us the relative pictures and logo when he got them.

Layout

Before we take over this project, this Android app module has been used for years. Thus, there is an existing layout for the app. However, not every conference is identical. We made a few modifications each time for specific uses.

Backend

Most of our works are concentrated in backend ---- the coding part and database.

Coding

We use eclipse to develop and debug our app. There is an ADK version of eclipse that contains what we need for Android development.

Database

Database has been established years ago. It contains details about conferences like who will attend, who will present, which paper is discussed in presentations, schedules of each talk, which event will take place, etc.

WHAT WE DO

Android App for Conference Navigator is an existing app that has been used for years on serving users for conferences. We use ADT to update information about each conference, Navicat to store data. We use AVD and Nexus 7 (tablet) to test our app. Then we publish our app on Google Play before the conference start.

During this summer semester, we've developed five apps for different conferences. Below is a list of those conferences and links to their pages.

UMAP2013 (<http://halley.exp.sis.pitt.edu/cn3/conferenceHomePage.php?conferenceID=114>)

i-KNOW 2013 (<http://halley.exp.sis.pitt.edu/cn3/conferenceHomePage.php?conferenceID=126>)

EC-TEL 2013 (<http://halley.exp.sis.pitt.edu/cn3/conferenceHomePage.php?conferenceID=124>)

EDM & AIED 2013

<http://halley.exp.sis.pitt.edu/cn3/conferenceHomePage.php?conferenceID=115>)

iConference 2013

<http://halley.exp.sis.pitt.edu/cn3/conferenceHomePage.php?conferenceID=98>)

Each of these apps could be found on Google Play by typing their name into search area.

Working routine

Change resolutions of pictures and icons

We got all images of certain conference with high resolution, which lead to crush when running the program. We have to change the resolution into a smaller value to make sure apps could run well on different devices.

Below are background and icon for i-KNOW.



Figure 1 i-KNOW icon



Figure 2 cover page for i-KNOW



Figure 3 background image for i-KNOW

Download data for database

Xidao Wen is in charge of database. Every time he finished updating it, he let us know. Then we could start our job on data part.

Not everything in database need to be displayed on our Android app. We need to write some query to get what we need from this big data set.

Navicat Premium is what we use on sharing data.

Below is a glimpse of our database.

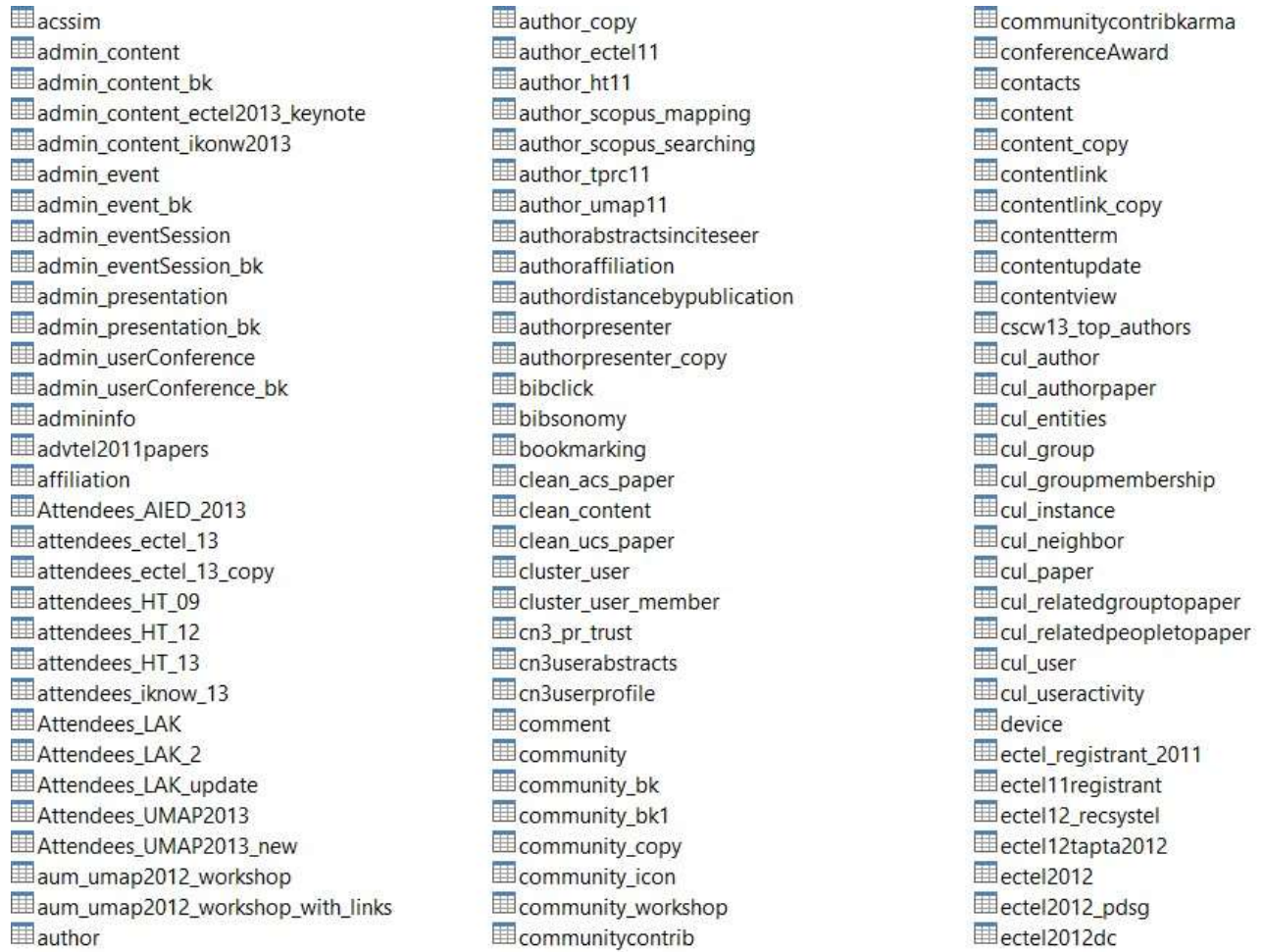


Figure 4 List of tables

presentationDate	beginTime	endTime	contentID	eventSessionID	track
2008-06-19 00:00:00	2008-06-19 09:45:00	2008-06-19 10:15:00		2	8 Web Science: Collaboration and Collective Intelligence
2008-06-19 00:00:00	2008-06-19 09:15:00	2008-06-19 10:15:00		3	8 Creating out of the Machine: Hypertext, Hypermedia, and Web Artists Explore the Craft
2008-06-19 00:00:00	2008-06-19 10:45:00	2008-06-19 11:20:00		4	10 Web Science: Collaboration and Collective Intelligence
▶ 2008-06-19 00:00:00	2008-06-19 11:20:00	2008-06-19 11:55:00		5	10 Web Science: Collaboration and Collective Intelligence
2008-06-19 00:00:00	2008-06-19 11:55:00	2008-06-19 12:30:00		6	10 Web Science: Collaboration and Collective Intelligence
2008-06-19 00:00:00	2008-06-19 10:45:00	2008-06-19 11:35:00		7	10 Creating out of the Machine: Hypertext, Hypermedia, and Web Artists Explore the Craft
2008-06-19 00:00:00	2008-06-19 11:35:00	2008-06-19 12:25:00		8	10 Creating out of the Machine: Hypertext, Hypermedia, and Web Artists Explore the Craft
2008-06-19 00:00:00	2008-06-19 13:45:00	2008-06-19 14:20:00		9	12 Web Science: Collaboration and Collective Intelligence
2008-06-19 00:00:00	2008-06-19 14:20:00	2008-06-19 14:55:00		10	12 Web Science: Collaboration and Collective Intelligence
2008-06-19 00:00:00	2008-06-19 14:55:00	2008-06-19 15:30:00		11	12 Web Science: Collaboration and Collective Intelligence
2008-06-19 00:00:00	2008-06-19 13:45:00	2008-06-19 14:35:00		12	12 Creating out of the Machine: Hypertext, Hypermedia, and Web Artists Explore the Craft
2008-06-19 00:00:00	2008-06-19 14:35:00	2008-06-19 15:30:00		13	12 Creating out of the Machine: Hypertext, Hypermedia, and Web Artists Explore the Craft
2008-06-19 00:00:00	2008-06-19 16:00:00	2008-06-19 16:30:00		14	14 Web Science: Collaboration and Collective Intelligence
2008-06-19 00:00:00	2008-06-19 16:30:00	2008-06-19 17:00:00		15	14 Web Science: Collaboration and Collective Intelligence

Figure 5 Details for table Presentation

Make changes on code

After all pre-works done, we start our coding part. ADK provides a very straightforward view for coding, which makes our coding progress much easier. Below is some code of our program.

```
public void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    requestWindowFeature(Window.FEATURE_NO_TITLE);  
    getWindow().setFlags(WindowManager.LayoutParams.FLAG_FULLSCREEN,  
        WindowManager.LayoutParams.FLAG_FULLSCREEN);  
  
    setContentView(R.layout.track);  
  
    this.IDToTrackName();  
  
    trList = new ArrayList<Track>();  
    trList = loadData();  
    TextView tv = (TextView) findViewById(R.id.TextView01);  
    tv.setText("Tracks");  
    ListView lv = (ListView) findViewById(R.id.ListView01);  
  
    lv.setAdapter(new ListViewAdapter(trList));  
    lv.setOnItemClickListener(new OnItemClickListener() {  
        public void onItemClick(AdapterView av, View v, int pos, long arg) {  
            Intent in = new Intent(Tracks.this, PaperInTrack.class);  
            in.putExtra("trackID", trList.get(pos).id);  
            in.putExtra("trackName", trList.get(pos).name);  
            in.putExtra("trackContent", trList.get(pos).content);  
            in.putExtra("trackChair", trList.get(pos).chair);  
            startActivity(in);  
        }  
    });  
}
```

Figure 6 onCreate function of track page

Finished work

There are some screen shots of our finished work.

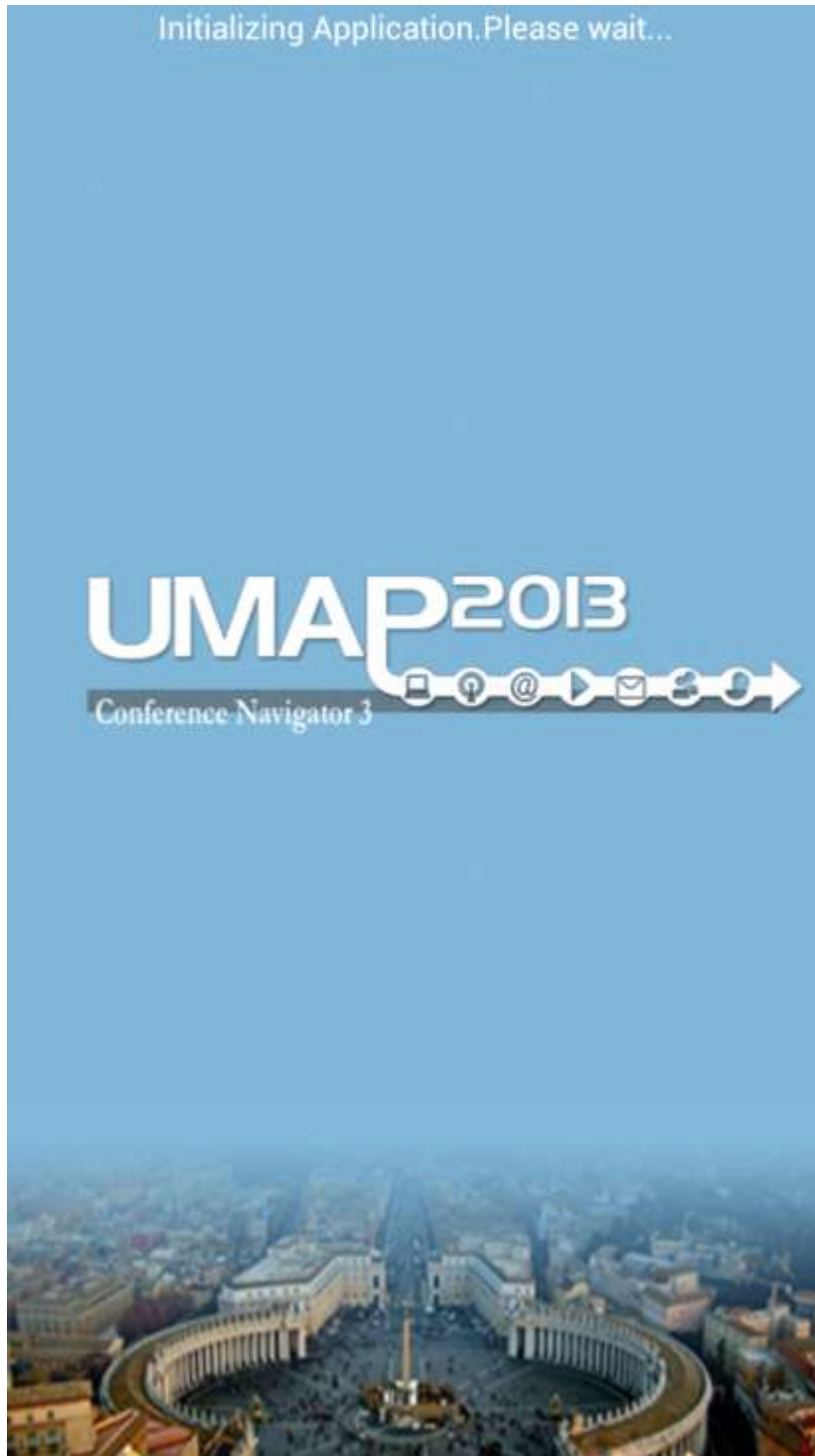


Figure 7 Welcome page



Figure 8 Main Interface

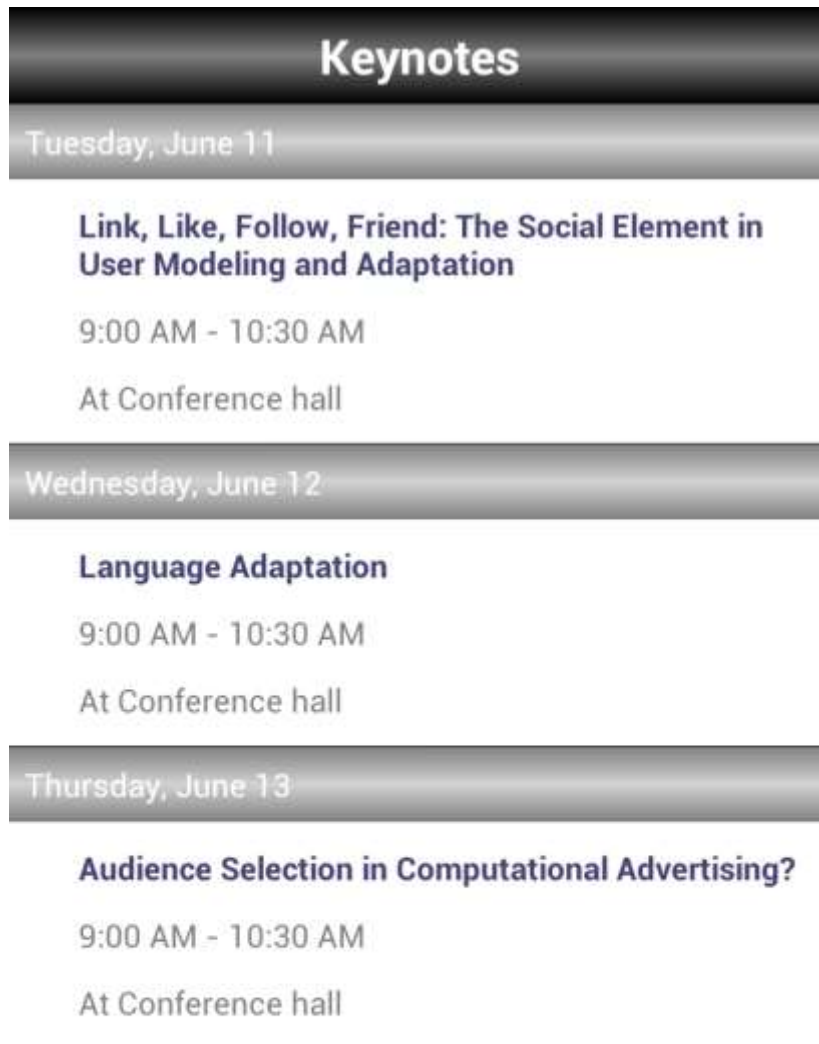


Figure 9 List of Keynote









Author	Title	Type
	Monday, June 10 2:00 PM - 2:30 PM	A
	Adam Moore, Christina M. Steiner, Owen Conlan	B > C D E
	Workshop Paper	
	Utilizing Social Networks for User Model Priming: User Attitudes	F G H
	Tuesday, June 11 4:00 PM - 7:00 PM	I
	Adam Moore, Gudrun Wesiak, Christina M. Steiner, Claudia Hauff, Declan Dagger, Gary Donohoe, Owen Conlan	J > K L M
	Late Breaking Result	
	Towards Deep Personalisation of E-Government Services ? A Co-evolutionary Perspective on Electronic Public Service Personalization	N O P Q
	Friday, June 14 4:00 PM - 5:00 PM	R > S T U V
	Adegboyega Ojo	
	Workshop Invited Talk	
	Personalized Cultural Heritage Experience outside the Museum ? Connecting the Outside World to the Museum Experience	W X Y Z >
	Friday, June 14 2:50 PM - 3:15 PM	
	Alan J.Wecker, Tsvika Kuflik, Oliviero Stock	
	Workshop Poster	

Figure 10 List of Pagere

FUTURE WOKRS AND IMPROVEMENTS

Since there would be new conferences come up each year, this project need to be taken care of after we graduated. For each coming conference, works like update pictures, and database should be done. Thus, this app need long term management.

And for current versions, some bugs were not fixed totally. People (developers) who take this project in the future still need pay attention to those bugs. And if possible, it would be good to debug this project.