# ENPRO 350

# Browsable Audio for Language Learning

## Midterm Report – October 26th, 2006

**Team Members**

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# MISSION

To usher in a new technology called 'Browsable Audio' that delivers effective language learning tools on portable devices.

- Browsable Audio
  - step-through capability
  - each word is linked to information

- Language Learning
  - audio book combined with scrolling text
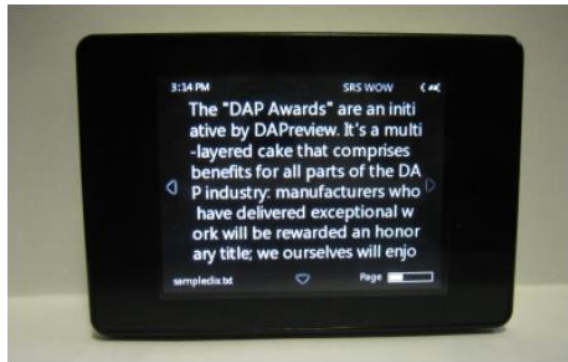  - quick look-up of definition and usage

# PRODUCT

*In his eyes she eclipses and <u>predominates</u> the whole…*

Predominates:

*To have or gain controlling power or influence; prevail*

*………..*

*………..*

# VALUE PROPOSITION

- Learn a new language anywhere, anytime

- Transition from intermediate proficiency to fluency

- Cost-effective

- Vast applications for browsable audio in future

# TECHNOLOGY

**Adam Berg (team leader)**
**Josh Short**
**Dariusz Kuc**
**Shivam Srivastava**

# OBJECTIVES

- Answer key questions
      - product, platform, interface?


- Build prototype


- Develop plan for product development

# ACHIEVEMENTS

Completed research on a broad range of devices and brands

- Selected iRiver Clix MP3 as suitable device for initial proof of concept

- Flash LITE 2 as platform for creating prototype

- Completed interface design

# ACHIEVEMENTS

Prototype Development

- CLIX application (Adam, Shivam)
    - workflow design completed
    - coding in early-mid phase

- Dictionary pre-processing (Dariusz)
    - algorithms complete
    - interface development in progress

```
import mx.controls.*;

stop();

var i:Number = new Number(1);
var j;
var words;
var bookAudio = new Sound(main_movie);

var startArr:Array = new Array;
var endArr:Array = new Array;
var wordsArr:Array = new Array;
var fileArr;

setInterval( function(){
        i = (bookAudio.position);

        }        // set status_txt to i
        , 100 );

var textFile:LoadVars = new LoadVars();
var pause_button:mx.controls.Button;
this.createEmptyMovieClip("main_movie", 10);
this.createTextField("bookText", 999, 34, 105, 500, 500);
bookText.type = "dynamic";
bookText.border = true;
bookText.wordWrap = true;
bookText.multiline = true;
bookText.background = 0xFFFFFF;
textFile.load("c:\\iprotext.txt");

textFile.onLoad = function(success){
                bookText.text = this.book;

}

bookAudio.attachSound("iproaudio");
bookAudio.start(0,99);
```
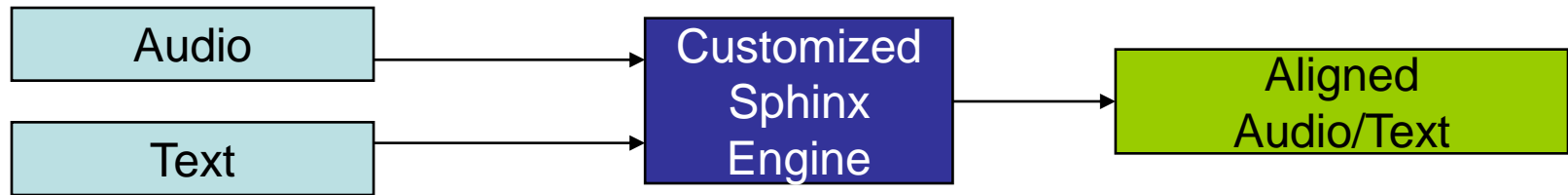
# ACHIEVEMENTS

Operational Plan for Future

- Application for alignment of text and audio (Josh)

```
┌──────────┐
│  Audio   │────────┐      ┌──────────┐        ┌──────────┐
└──────────┘        ├─────▶│Customized│        │ Aligned  │
┌──────────┐        │      │  Sphinx  │───────▶│Audio/Text│
│   Text   │────────┘      │  Engine  │        │          │
└──────────┘               └──────────┘        └──────────┘
```

- Research in progress of Sphinx speech-recognition engine

- Considering .NET platform for development work

# BUSINESS

**Shravani Pasupneti (team leader)**
**Ryan Feuerstein**
**Soham Patel**
**Syed Zaffer**
**Sayiddah McCree**

# OBJECTIVES

## Business

• Define target market

• Competitor Analysis

• Understand customers group

• Understand IP, DRM & copyright issues involved

• Prove interest for our product

• Explore partnerships

# ACHIEVEMENTS

Target Market

- Business individuals
- ESL students
- Wide, expanding customer base

- To Do
    - Narrow customer base (financial, age group, demographic analysis)
    - Further define value proposition

# ACHIEVEMENTS

## Competitor Analysis

- CleverLearn, Audible.com, Rosetta Stone

- Competitor or Partner?

- To do

  - Study competitor's business models and possible tie-ups

  - Business model, revenue, process

# ACHIEVEMENTS

Legal Issues

• DRM issues

• Determined process to obtain interactive media rights

• To Do

- Explore copyright costs

- Understand process to acquire content

# ACHIEVEMENTS

Prove browsable audio as effective language learning tool

- Conducted focus groups studies with international students

    - Audio/Listening preferred to speaking, writing, reading

    - 80% prefer Audio books to other means

    - Majority use dictionary to look up words

# ACHIEVEMENTS

Prove browsable audio as effective language learning tool

- To Do:
  - More focus groups
  - Based on current surveys, improve questions and determine target group
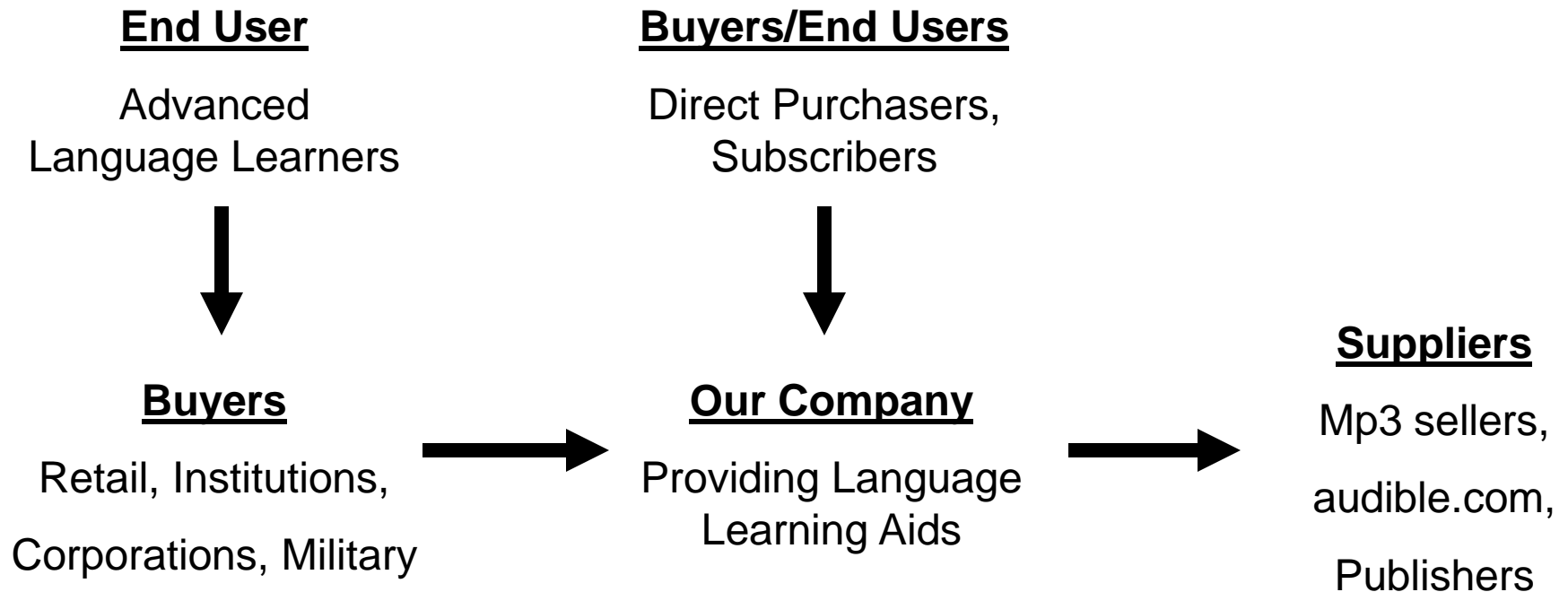  - Contact executives, businesses, language schools and ESL students

# ACHIEVEMENTS

Partnerships for content and distribution

- Competitors or partners?
- Distribution channel
- Broad definition of target market
- To Do:
  - Contact potential distributors
  - Examine partners outside partners
  - Determine pricing
  - Develop marketing strategy and costs

# ACHIEVEMENTS

## Cash Flow Model

**End User**

Advanced
Language Learners

**Buyers/End Users**

Direct Purchasers,
Subscribers

**Suppliers**

Mp3 sellers,

audible.com,

Publishers

**Buyers**

Retail, Institutions,

Corporations, Military

**Our Company**

Providing Language
Learning Aids

# PROBLEMS FACED

- Time crunch

- Prototype needs a lot of work

- Need concrete plan for future development

- Insufficient business knowledge

- Difficulties reaching a consensus

- Initial lack of motivation

# FUTURE TIMELINE

|  | Business | Technology |
|---|---|---|
| 10/31 | Complete "To Do" tasks outlined previously | Continue progress as outlined previously |
| 11/07 | | |
| 11/14 | Executive Summary | Split team: assist with Executive Summary |
| 11/21 | IPRO Day Poster, Deliverables, Exhibit Preparation | |
| 11/28 | Finalize Business Plan | Finalize Prototype |

# FINAL THOUGHTS

- Momentum after initial hiccups

- progress on business plan

- technology is huge challenge