

# Center for College Access and Success

*Making College Real*



## STEM for ALL

Engagement

TRIO Upward Bound Math and Science  
Center for College Access and Success  
Northeastern Illinois University

 **Northeastern**  
ILLINOIS UNIVERSITY

## Session Objectives

- This sessions will be divided into two areas: program services and program management:
  - In the first part of the presentation we will demonstrate a variety of technology tools and STEM projects to engage students in grade 6-12 and improve academic achievement.
  - In the seconds part of the presentation, we will address and overview of technology tools to develop communication and data collection strategies for program effectiveness and efficiency.

## Section I : 21st Century Classroom

This presentation will explore the use of project based and career oriented activities to engage students and provide services.

We will engage in a few activities during this presentation to discuss technology tools and resources useful for a 21st CCLC project.

1. VEX Robotics
2. Underwater Robotics
3. Game development
4. Music Editing
5. Architecture
6. Coding



## VEX Robotics

- **Classroom & Competition sets**
- **Engineering Design**
- **Critical thinking**
- **Math and Science Content**
- **Team building**
- **Leadership**



## Underwater Robotics - SeaPerch

- **Competition Set**
- **Engineering Design**
- **Critical thinking**
- **Math and Science Content**
- **Team building**
- **Leadership**



## Game Design - Kinect2Scratch

- Game theory
- Fundamentals of coding
- Computational thinking
- Trial and error - testing
- Problem solving
- Designing
- Producer vs. Consumer





## Music Editing

- Online and Desktop tools
- Math and Science concepts
- Music editing



## Architecture

- Desktop software
- CAD Design
- Math and Science concepts





## Coding

- Desktop and online
- Computational thinking
- Computer languages
- Math and Science concepts



## Section II : Project Management

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This presentation will explore the use of technology as a resource to manage projects, engage students and provide services.

We will engage in a few activities during this presentation to discuss technology tools and resources useful for a TRIO project.

1. Recordkeeping and File Sharing
2. Data Collection
3. Written Communications
4. Phone/Apps Communication
5. Presentations
6. Websites
7. Student/Teacher Tools

## 1. Recordkeeping / File Sharing

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### Google Drive (downloadable)

- Spreadsheets = customizable formatting and features, including drop-down menus, formulas, permissions for varying types of user access (can view; can edit; can comment) [Example](#)
- Documents = multiple concurrent users and real-time updating without the need to sync
- Files Collections





## 2. Data Collection

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- Google Forms
- Survey Monkey
- Poll Everywhere



## 3. Written Communications

- Gmail
  - Creating domains
  - Linked with Drive
  - Switching between accounts
- MailChimp
- Newsletters
- Blogs
- Social Media



## 4. Phone/App Communications

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- Google Voice
- Doodle
- Remind Text Service





## Advantages of Google Voice

- My number (312) 869-2308
- Enables scheduling of calls
- No personal numbers but still have access
- Can create for staff members without minutes
- Transcribed voicemail to email
- Create Emergency Exceptions
- Block Certain Numbers

Ring Schedule: ?

### Weekdays

- Always ring on weekdays
- Never ring on weekdays
- Use custom schedule

Do not ring phone from 9:00pm to 8:00am [Remove](#)  
[Add time range](#)

### Weekends

- Always ring on weekends
- Never ring on weekends
- Use custom schedule

Do not ring phone from 7:00pm to 9:00am [Remove](#)  
[Add time range](#)

Forwarding Options: ?

[Activate](#) · [Deactivate](#)

When someone calls this phone directly and I don't pick up

- Ring my other phones before going to voicemail
- Go straight to voicemail

## Doodle Account

- Use for easy scheduling for meetings, parent university, parent book club, work events, etc.

The screenshot shows a mobile app interface for Doodle. At the top, there's a navigation bar with a back arrow, a Doodle logo, and tabs for 'RESULTS', 'COMMENTS', and 'MORE'. To the right are icons for a calendar and settings, along with the time '09:52'. Below the navigation bar, the event title 'Volley with Victor' is displayed. The main content is a calendar grid with columns for dates: 11.12.13 (Wed) 19:00-21:00, 13.12.13 (Fri) 19:00-21:00, 18.12.13 (Wed) 19:00-21:00, 20.12.13 (Fri) 19:00-21:00, and 25.12.13 (Wed) 19:00-21:00. The rows represent participants: Sarah, Paul, Jessica, Mike, and Nancy. Green checkmarks indicate attendance: Sarah (11.12.13, 20.12.13), Paul (13.12.13, 20.12.13), Jessica (13.12.13, 18.12.13, 20.12.13), Mike (11.12.13, 20.12.13, 25.12.13), and Nancy (20.12.13). At the bottom of the grid, the number of attendees for each date is shown: 2 for 11.12.13, 2 for 13.12.13, 1 for 18.12.13, 5 for 20.12.13, and 1 for 25.12.13. The bottom of the screen features a navigation bar with icons for a grid view, a list view, a search icon, and a 'List' button.

	11.12.13 (Wed) 19:00-21:00	13.12.13 (Fri) 19:00-21:00	18.12.13 (Wed) 19:00-21:00	20.12.13 (Fri) 19:00-21:00	25.12.13 (Wed) 19:00-21:00
Sarah	✓			✓	
Paul		✓		✓	
Jessica		✓	✓	✓	
Mike	✓			✓	✓
Nancy				✓	
	2	2	1	5	1

## Remind Account

Instructions for students and parents to join  
21sCCLCPathways



**Enter this number**

This is your Remind number we created to keep your personal number secret.

**Text this message**

This is the unique class code we created for your 21sCCLCPathways class. Each class gets one. Give this to your students and parents too.

[www.remind.com](http://www.remind.com)



## 5. Presentations

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- Google Slides
- Prezi



<https://www.google.com/slides/about/>



**Prezi**

[www.prezi.com](http://www.prezi.com)

## 7. Website

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- Cloud website builder
  - Ready to build templates
  - Customizable
  - Drag and Drop building
  - Mobile Configuration
  - Easy to use for Events and Registrations



## 8. Student/Teacher Resources

- Google Classroom
- Edmodo
- Digital Badges



<http://digitalyouthnetwork.org/category/advertising/>

## Q & A

Presentation Link: <https://goo.gl/efCFPe>

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