

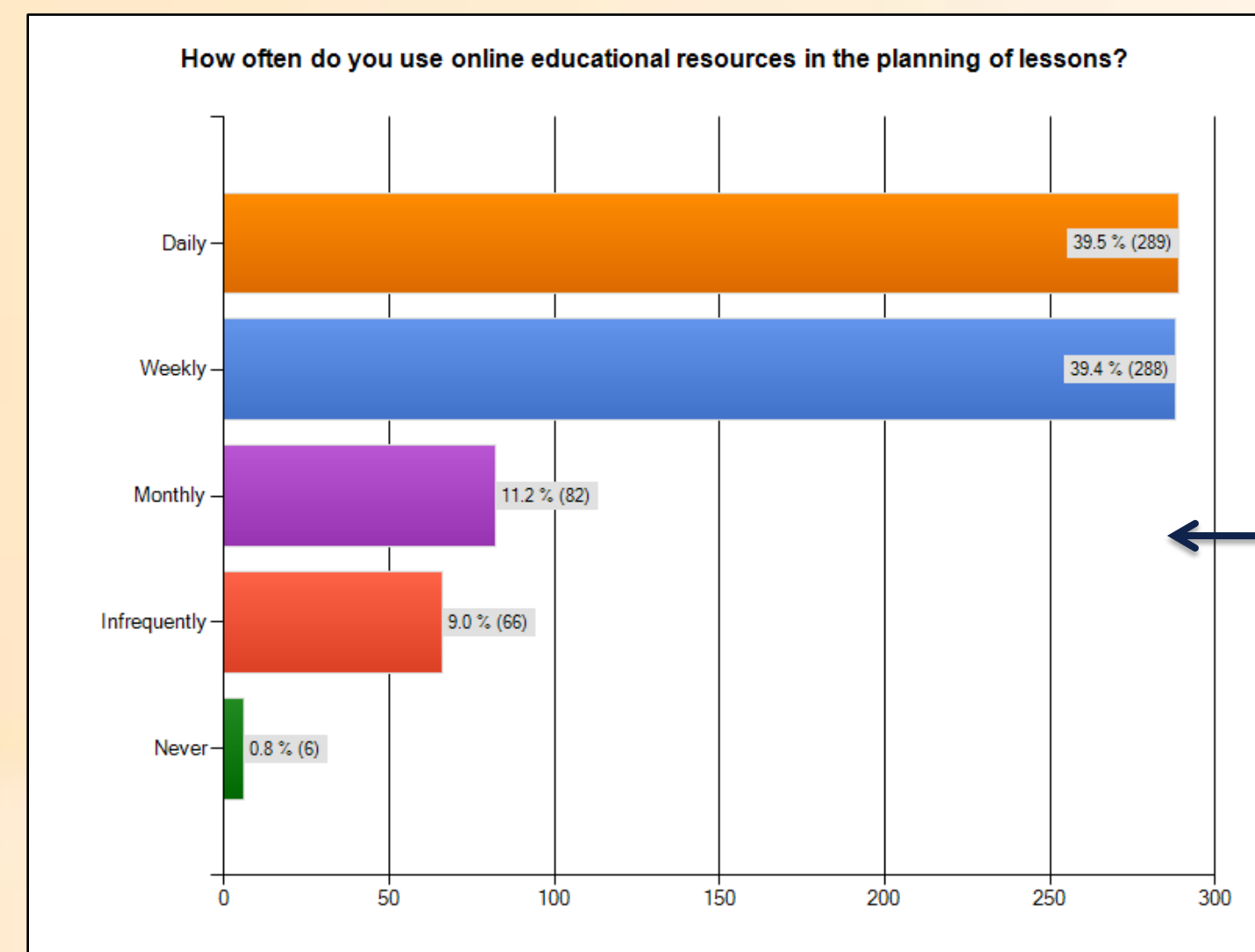
Unit Package Editor: A Web Tool To Help Educators Organize and Share Academic Resources

Tasneem Kaochar, Cody Jorgensen, Javad Taheri, Rostislav Sudakov, David Shefchik, Jane Strohm, Paul Cohen

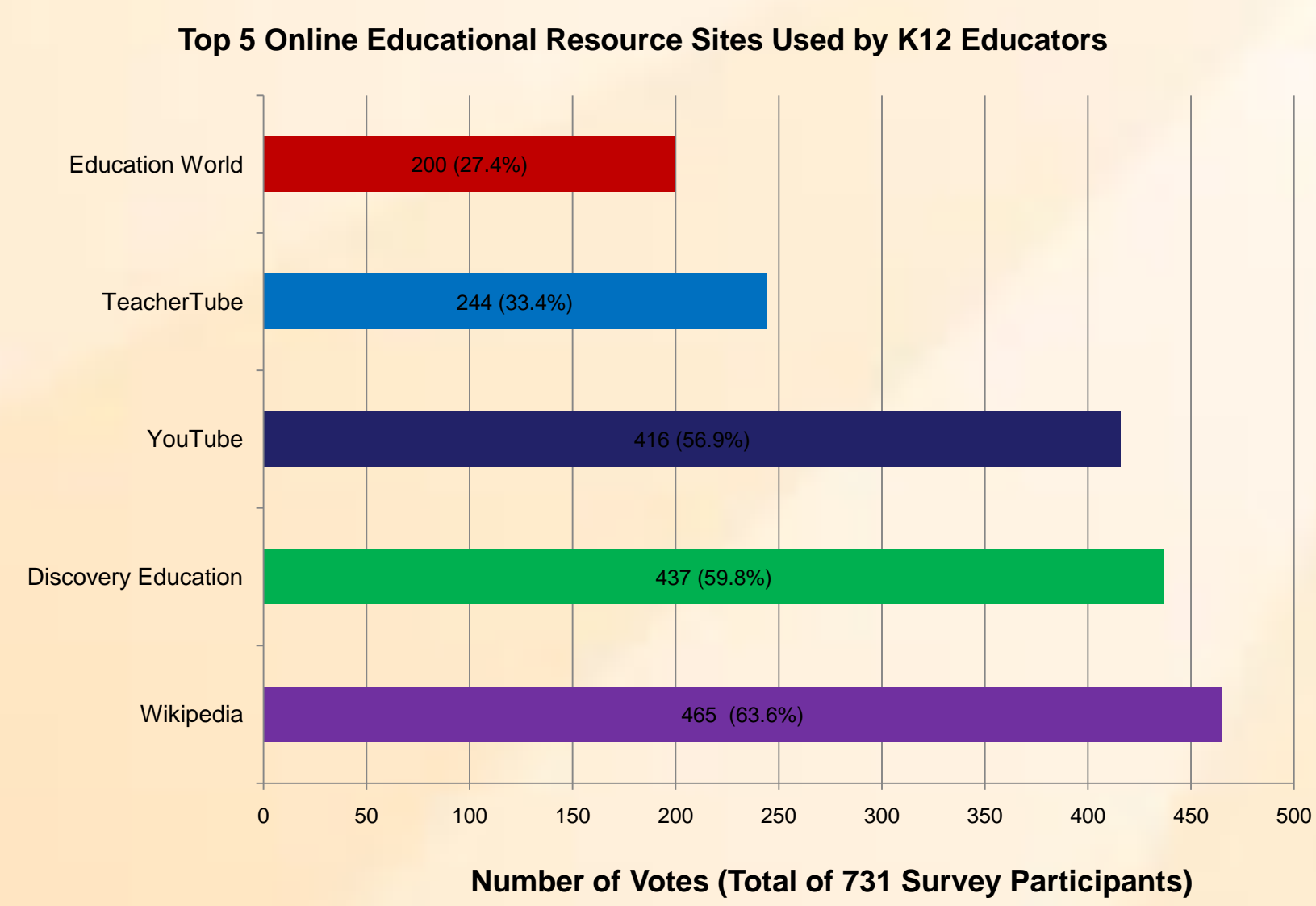
Department of Computer Science, University of Arizona

MOTIVATION

- Web is a powerful communication, collaboration and sharing tool
 - With the increasing investment of computer technology companies in netbooks and the growth of organizations such as One Laptop Per Child (OLPC), the availability of affordable educational devices for classroom and student is becoming a reality
 - Plethora of online educational resource sites (free and commercial)
 - Lots of free-floating online educational resources but lacking organization
- Critical to build an online community of educators helping each other
 - About a year ago, we conducted a survey of K12 educators to explore how they made use of the Internet in their daily teaching, in both the planning of lessons and in the actual classroom
 - We found that while some educators were already using online educational resources, an overwhelming majority complained that a major drawback was a lack of sufficient time to find and organize high quality educational material
 - Educators disliked having to "reinvent the wheel" individually every time new content needed to be mastered before presenting it to their students



The results for how often educators used online educational resources in the actual classroom was strikingly similar.



The figures above represent results from our survey of K12 educators, which included a total of 731 participants, majority of whom were teaching in the state of Arizona.

OVERVIEW OF TOOL

- A FREE, web-based utility for organizing online educational materials into units of organization based on some criteria
 - A user may choose any criteria for his/her organization scheme - our site and editor tool is designed to facilitate that process rather than impose restrictions
 - We only require that each organizational element is associated with a title, description and a set of tags in order to ease the task of searching and navigating through the site and our resource database
- Site users can create, collect and add new content to the site or use, expand on and collaborate on existing site content
- Great way for skilled, experienced educators to help new (and potentially unprepared) colleagues in the same city or on two different continents!
- For more information, please contact [Tasneem Kaochar \(tkaochar@email.arizona.edu\)](mailto:tkaochar@email.arizona.edu) or [Jane Strohm \(jstrohm@email.arizona.edu\)](mailto:jstrohm@email.arizona.edu)

AN IN-DEPTH LOOK

Our site allows users to:

- collect resources from the web (or create original resources)
- store resources in a safe database that is accessible over the Internet anytime, from anywhere
- organize resources into larger components called units

- Register and create a free account on our site
- Collect and/or create resources by adding them to your online collection

An educator may use this field to describe how he/she used the resource in the classroom

A resource can also be original content you authored and wish to upload to site for organization purposes, easy access and sharing with others (optional)

For a resource you do not wish to share with others, you can set its setting to **Private**

Specify title and description for the resource in your own words

A resource may be a link to a publicly available online material

Privacy setting (what's this?)

Public Private

- Create units to organize your resources

Specify unit title

Title: Fractions - An Introduction

Description: An introductory tutorial on understanding the basics of fractions. Topics covered include: (1) reducing fractions, (2) mixed numbers and improper fractions, (3) adding and subtracting fractions, (4) multiplying and dividing fractions. This content is appropriate for grades 6-8.

Tags: fractions, mixed numbers, middle school math,

Select the visibility of this unit: Public Private

Set unit as Public or Private to restrict visibility within site

Provide a description

Add helpful tags

A UNIT is a hierarchical organizational element made up of RESOURCES and other UNITS (may be referred to as subunits)

- Drag and drop resources into the desired unit using the Unit Package Editor

A resource or subunit can be deleted from by dragging item to trash icon

User *hermione's* entire collection (includes resources and units)

Drag and drop resources and units from user's collection to the destination unit. Resources can be reordered within an unit.

For Firefox users, we have a toolbar that eases the task of collecting resources from all over the web.

Site's home page

View all resources in logged in user's collection

Go to Unit Editor

View most recent resources

View site tag cloud

Add Resource

COLLABORATION AND COMMUNICATION FEATURES

Our site provides several ways for users to communicate with each other and collaborate on units:

Logged in user's name

A user may rate any public resource or unit on the site

Logged in user *tkaochar* can browse user *hermione's* public units (in fact, any site visitor can browse a user's public collection)

Creator of the unit

User *hermione's* rating of a public unit created by user *tkaochar*

- Inside the Unit Package Editor

User *tkaochar* is able to successfully copy another user's public unit to her own collection using the Unit Package Editor

User *tkaochar's* view of editing own unit 'Beginning Algebra'

A user may comment on any public resource or unit

Any site visitor can view the comments for a public unit or resource

Only logged in users can comment on a public unit or resource on the site

SEARCH AND NAVIGATION

There are 3 main ways to search the site for public resources and units:

- Use search engine on the site's home page
- Use search panel on the Unit Packet Editor

Collect, organize, and share teaching resources.

Sample result page for search term 'information'

Enter search term

Specify search parameters

List of site's most recent public units and resources always available on front page

- Browse the site-level and user-level tag clouds

Tag Cloud

tag: calculus

Selecting tag 'calculus' generates a new page with matching results

NOTE: Both options 1 and 3 are search features available to any site visitor

ACKNOWLEDGMENTS

We would like to acknowledge William Mitchell and Carole Beal for their continued support and guidance of the development team. Special thanks to the Computer Science lab staff for their maintenance support, in particular, Eneida Lima and Robert Talbert. Special thanks also to all past developers of the project including Marco Escárcega, James and Charles Magahern. Supported by DARPA, contract 325590.

