

Team Media

Reimagining Access 2 | 21SU
Cynthia Lee, Yuning Tang, Jiaying Wang

01 **Introduction**

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01




Introduction

Project Question

How can designers work with people with disabilities to **improve the user experience and accessibility of digital technologies?**

 **ArtCenter Archives**

Browse ▾ Search 

   Log in ▾

ArtCenter Archives and Special Collections and the Hoffritz Milken Center for Typography (HMCT) Archives

Browse by

- [Archival Institutions](#)
- [Collections](#)
- [People & Departments](#)
- [Subjects](#)
- [Places](#)
- [Digital objects](#)

Popular this week

- [Model of a suction cup thermometer with the numbers on a semicircle by Jakob Wagner \(PROD 1992\) for the Berendsohn sponsored project taught by Daniel Aeschbacher. 60 visits](#)
- [Three models of scissors including one shaped like a bird by Thomas Küchler \(PROD 1995\). 41 visits](#)
- [ArtCenter College of Design Archives and Special Collections 39 visits](#)
- [Model of a suction cup thermometer with the numbers on a semicircle by Jakob Wagner \(PROD 1992\) for the Berendsohn sponsored project taught by Daniel Aeschbacher. 36 visits](#)
- [Bill Meriwether papers 35 visits](#)
- [Advertising Department photographs 34 visits](#)
- [Letter to Former Classmates, 1943 34 visits](#)
- [Connell Cooler, 1944 34 visits](#)
- [Illustration Department photographs 33 visits](#)
- [Iris Light 32 visits](#)

ArtCenter Virtual Archives

Welcome to the online catalog for the [ArtCenter Archives and Special Collections](#) and the [Hoffritz Milken Center for Typography \(HMCT\) Archives](#)


Archives and Special Collections is currently closed due to COVID-19. We are available for virtual reference through [email](#).

This site contains photographs, publications, video, and finding aids from the collections.


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[ArtCenter 2020: Stories](#)

ArtCenter students, faculty, staff, and alumni - Archives and Special Collections wants to collect and preserve your stories from 2020. What has studying, teaching, and working from home been like during the pandemic? Have you participated in racial and social justice movements? How has 2020 influenced your work? What challenges and triumphs have you had this year? [Please share YOUR story](#)



[Additional Tips for Searching](#)
[Policies and Procedures](#)



ArtCenter current Archives Website

Project Goal

Our design should work **convenient,**
straightforward, and compatible with assistive
technologies.

Project Goal

Our design should work **convenient,
straightforward, and compatible with assistive
technologies.**

Project Description

Design accessible features for the ArtCenter Archive website that optimize the user experience for **searching and viewing archival items.**

What problems are we trying to solve?

Challenge 1

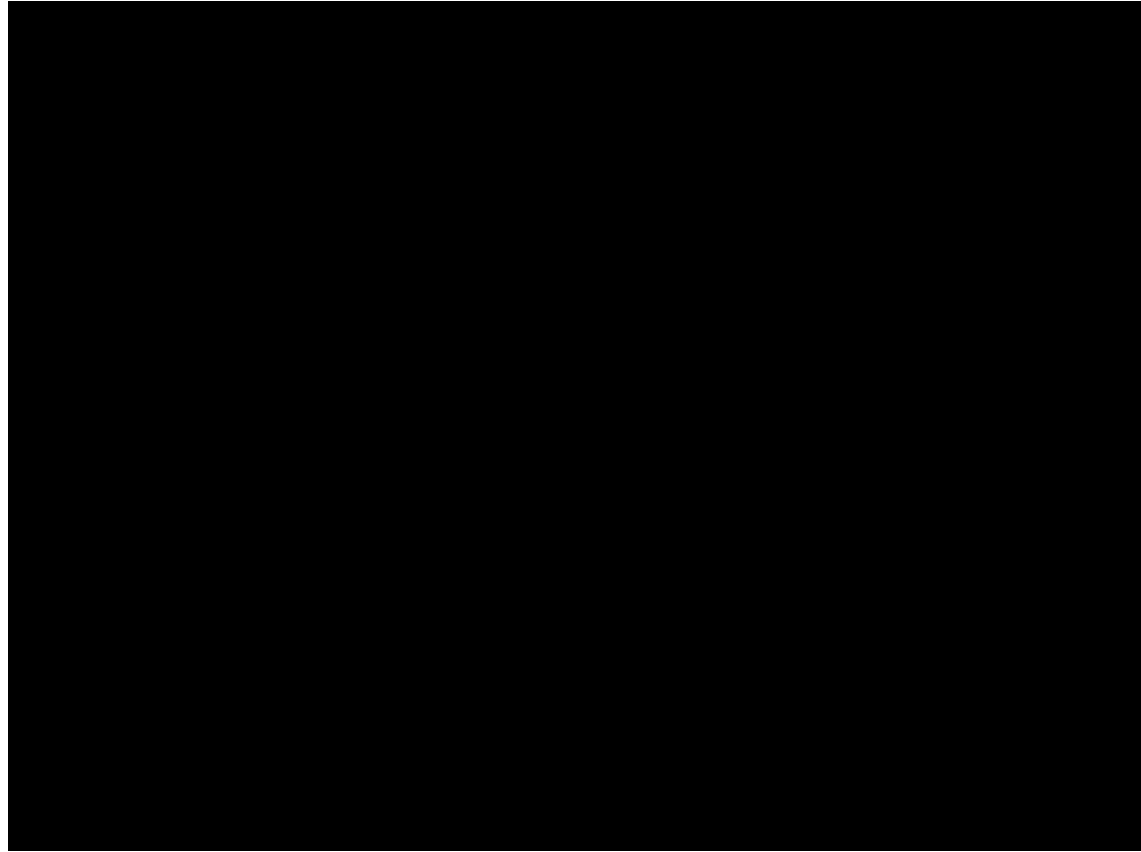
How can I access?

- Some images, audio, and videos are missing captions or subtitles.
- We want to improve the accessibility of different media-type documents.

Challenge 1 - Screen Reader

Issues occurred when screen-reader was trying to read PDF document:

- Text recognition accuracy.
- Focus area (box) misalignment.
- It does not support selecting paragraphs to read.



Challenge 2

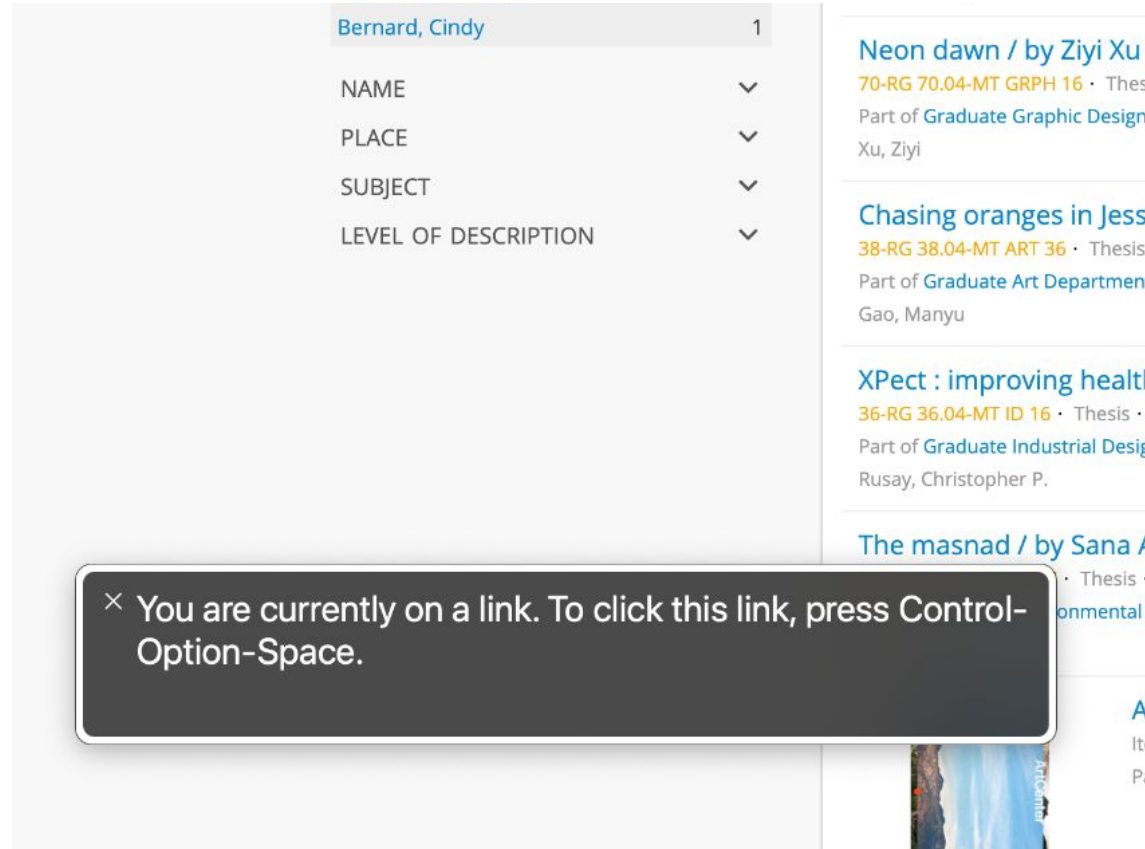
How to access easily?

- Using a keyboard could cause difficulties in pressing multiple keys together.
- We want to discover the greatest possibility of a hands-free system and off-screen interaction.

Challenge 2 - Keyboard

Issues occurred when using keyboard as the input method:

- Multiple keys need to be pressed and held.
- Keys are located at separated locations.



The screenshot shows a web interface with a list of search results. On the left, a sidebar contains a search bar and a list of filters: NAME, PLACE, SUBJECT, and LEVEL OF DESCRIPTION, each with a dropdown arrow. The main content area displays a list of search results. The first result is 'Bernard, Cindy' with a value of '1'. Below it are three more results, each with a title, a code, and a description. A dark tooltip box is overlaid on the screen, providing instructions on how to click a link using the keyboard.

× You are currently on a link. To click this link, press Control-Option-Space.

Search results list:

- Bernard, Cindy 1
- NAME
- PLACE
- SUBJECT
- LEVEL OF DESCRIPTION

Search results details:

- Neon dawn / by Ziyi Xu
70-RG 70.04-MT GRPH 16 • Thesis
Part of Graduate Graphic Design
Xu, Ziyi
- Chasing oranges in Jess
38-RG 38.04-MT ART 36 • Thesis
Part of Graduate Art Department
Gao, Manyu
- XPect : improving health
36-RG 36.04-MT ID 16 • Thesis
Part of Graduate Industrial Design
Rusay, Christopher P.
- The masnad / by Sana A

02

Research

Research

What did we found?

- UARC Guidelines.
- Assistive technologies.
- Research on color blindness.

UARC Guidelines

Prepare for participants with disabilities assistive technologies:

- **Blind-Braille versions** of the session materials.
- **Low vision**- Large sans serif font text version, high contrast color.
- **Deaf and hard of hearing**- have all planned and anticipated communication typed out ahead of time.
- **Dyslexia and ADHD**: all materials are structured with clear headings and the content is written in plain language.

Assistive Technology



Many different types of [assistive technologies](#) are available.

Windows:

NVDA

Serotek System Access

WebAnywhere

Spoken web

OS X:

VoiceOver

WebAnywhere

Spoken web

Linux:

ORCA

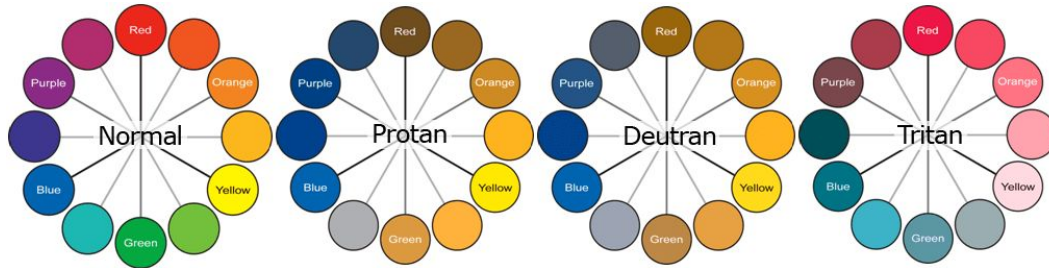
BRLTTY

Emacspeak

WebAnywhere

Spoken web

Color Blindness



There are different types of colorblindness and a wide range of vision. High contrast in color choices, fonts, and sizing is essential.

**We gained insights &
feedbacks during
Participatory Sessions.**

Inspired Quotes

“Being able to do the **whole walkthrough by voice** is very important.”

“I like those ideas which content can be **saved onto a clipboard.**”

“Provide **different command options** for users to choose.”

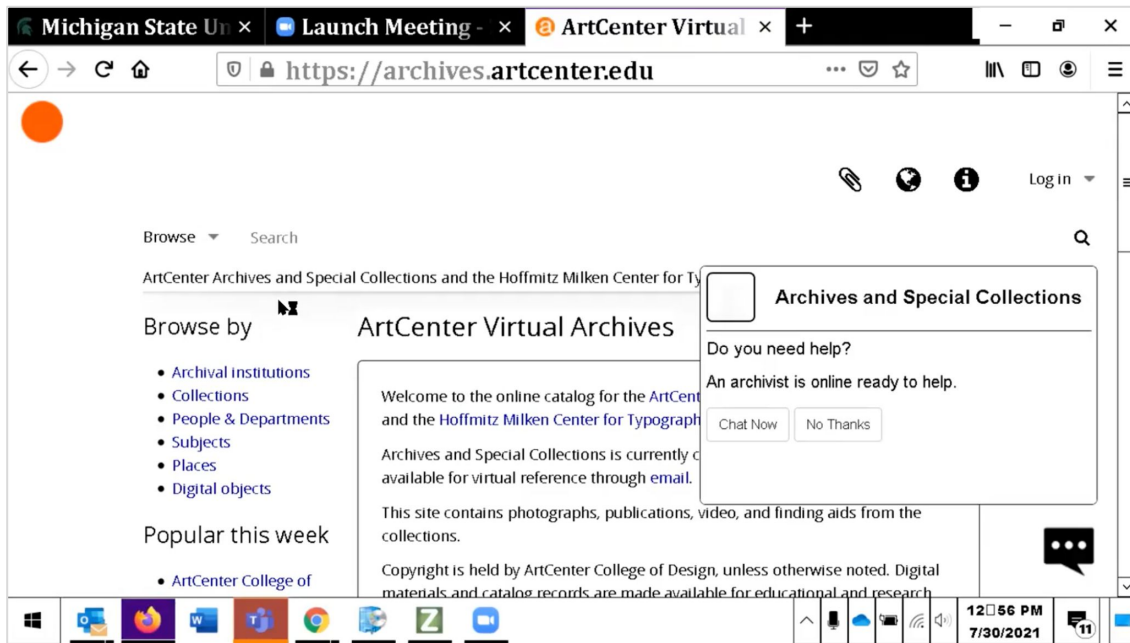
“I wonder when you first come to ArtCenter website, it reads out loud automatically, **gives you the available options.**”

“When it comes to ‘Browse’, the **result doesn’t really comes out**, it just said ‘Browse’. I would **have to click some place** over there in the middle...”

Session#1 - Accessing Digital Archive

The participant walked through his search for archival items on the ArtCenter Archives website while using a screen magnifier.

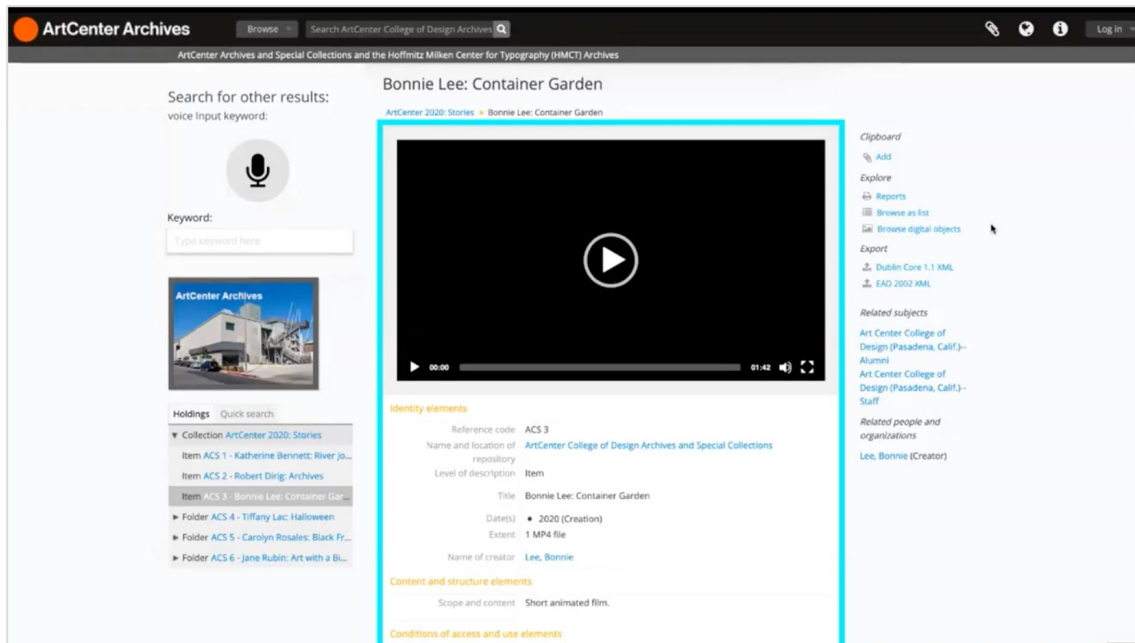
This is a screenshot during the participant's screen-sharing.



Session#2 - Prototype Walkthrough

The participant walked through his process of searching archival items on ArtCenter Archives website, while using a screen magnifier.

This is a screenshot of our prototype.



**Our final designs value simple,
accessible experiences.**

03

Concepts

How could we make
archives easily accessed
to everyone?

Design 01

Replace typing with
voice input and
capture keywords

An add-on feature that applies **voice search**
and voice input to capture the keyword.
So users could speak to command instead
of typing.

Refine your results by:

Media Type



Media Type

Media Type

- All
- Image
- Video
- Audio



Showing 1 results

1/1



Showing 1 results

Showing 1 results



Recent Los Angeles Garden

By [Author Name]
 From [Publisher Name]
 First published [Year]
 L.A. Garden



Showing 1 results

Recent Los Angeles Garden

By [Author Name]
 From [Publisher Name]
 First published [Year]
 L.A. Garden



Showing 1 results

Recent Los Angeles Garden

By [Author Name]
 From [Publisher Name]
 First published [Year]
 L.A. Garden



Showing 1 results

Recent Los Angeles Garden

By [Author Name]
 From [Publisher Name]
 First published [Year]
 L.A. Garden



Showing 1 results

Recent Los Angeles Garden



How could we make media-typed documents accessible?

Design 02

**Speech to text:
AI recognizes &
generates transcript**

An add-on feature that uses AI-powered language translation to generate [text transcript](#) for [videos & audios](#). So users could read with assistive technologies and download.

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[illegible]

2004 This is a banner, and I will use these banners (yikes) to exchange real bananas in schools. This is the new policy from school that provides to everyone. This idea is, if you need, the art center will always be there for you.

2007 This is the new policy from school that provides to everyone. This idea is, if you need, the art center will always be there for you.

Downloaded from <http://ajph.org/> on November 10, 2015

1999

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

1999

100

2000

26. [Answer key for Chapter 10](#)

systems

† *Staphylococcus aureus* 81-10000.

1140

© 2004 Blackwell Publishing Ltd *Journal of Internal Medicine* 255: 103–110

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811-746-6746
844-999-7466

Abstract

[!\[\]\(bff896c19919791b89ab521f039b410a_img.jpg\)](#)
[!\[\]\(313b953e922872460aebc4922cab3c35_img.jpg\)](#)
[!\[\]\(436269a805dd9e359e84ac75cc95e2fe_img.jpg\)](#)

Keywords: child sexual abuse; disclosure; social support

How could we make
media compatible with
screen-readers?

Design 03

Image recognition
to generate
alternative text

A browser extension that uses AI-powered image recognition to generate [alternative text](#), for images without captions and PDF documents that are images of text.



ART
CENTER
COLLEGE
OF
DESIGN

ArtCenter

BULLETIN NO. 6

OCTOBER 17, 1994

FALL

COMING UP

David Yencken, professor of landscape architecture and environmental planning at the University of Melbourne, will be our next **Toyota lecturer**. Yencken believes urban designers have special problems in the new world. He will address these issues in his talk, "**Urban Design in the New World**," today from 11:30 a.m. to 12:30 p.m. in Room 133.

As part of the **Career Resources Business Dialogue Series**, **Lisa Keene** and **Christy Maltese** of **Walt Disney Pictures** (feature animation) will speak from noon to 1 p.m. in the Ahmanson Auditorium on Thursday, Oct. 20. Please note that **the room has changed** to accommodate a larger audience. The women are both Heads of Background for the upcoming animated films "Pocahontas" and "The Hunchback of Notre Dame," and they will discuss painting for background animation and will demonstrate the techniques and skills necessary to be a background painter.

Poet, critic and curator **Paul Vangelisti** will

A very important **Core-Group** meeting will take place on *Wednesday, Oct. 19 at 8 a.m.* in the Board Room. Please plan to attend this meeting.

Tuition deposit for the spring 1995 term is due *Friday, Oct. 21, 1994*. Please write your account number on the check when paying the cashier. You must pay a **late fee** of \$50 if your agreement and tuition deposit are received after the 21st, but before Oct. 28. After Oct. 28, the late fee is increased to \$100.

The **last day to drop a studio or academic class** is *Friday, Oct. 28*. If you are dropping a mini academic class, you must drop it before the class ends. Class drops are only completed through the Programs Office.

Attention graduating students: Grad books will be on sale during lunch next week in front of the cafeteria. The grad book is \$20 for students and \$25 for non-students.

Grad book photos will be taken during week seven. Specific time and location to be

The generated text

[h2] ArtCenter

[h1] BULLETIN NO. 6

[h2] OCTOBER 17, 1994. FALL. COMING UP

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Thank you!

We are open for feedback :)