One Site One Framework One Sustainable Path

HighEdWeb 2019





Bob Crisler

robert.crisler@unl.edu

Aaron Coleman

acoleman@unl.edu

a dramatic reenactment



(just kidding)



no, really.

Oh \$#!+! We're having trouble finding that site.



We can't connect to the server at your university website.

If that address is correct, here are three other things you can try:

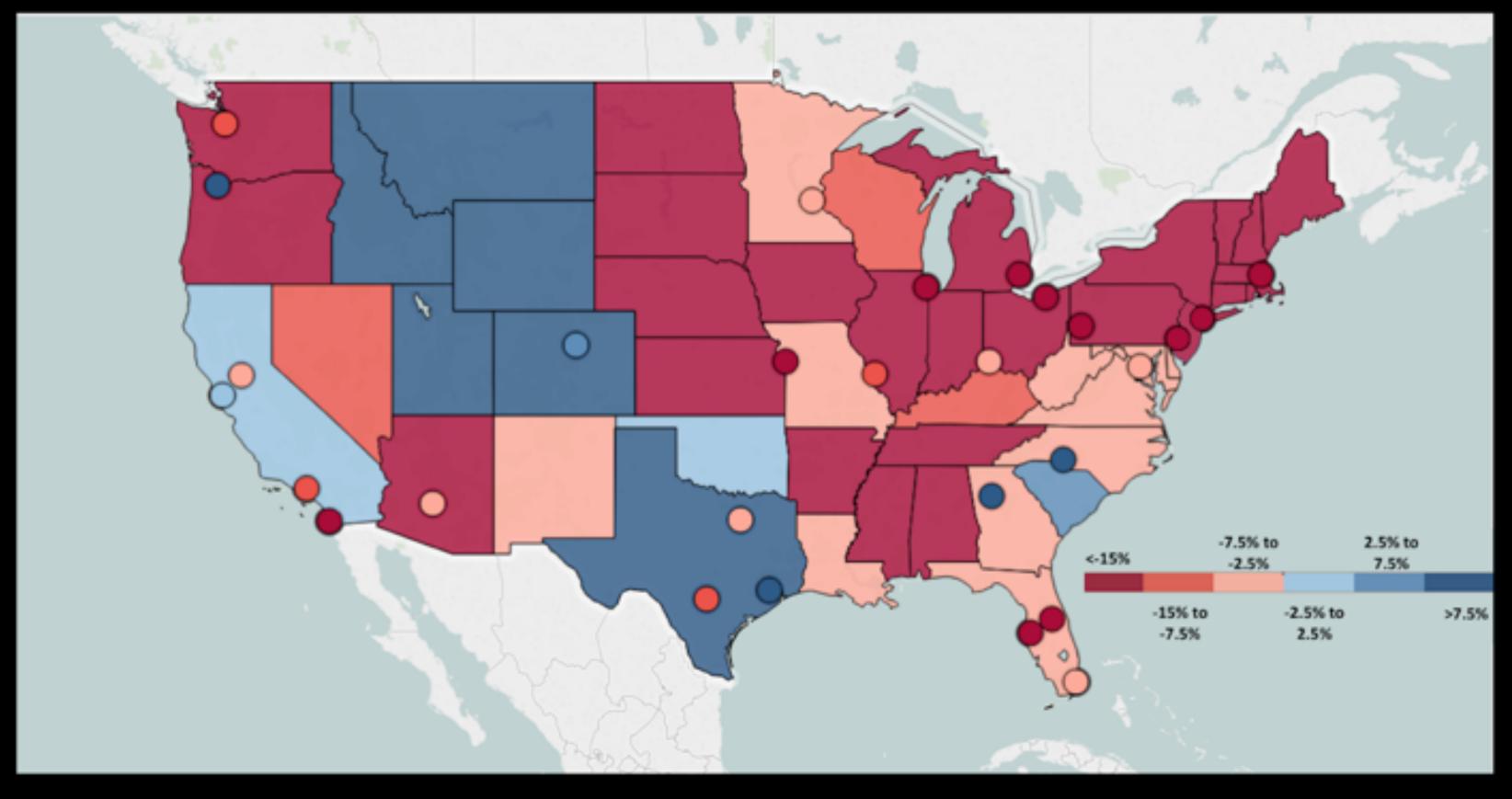
- Disconnect your phone.
- Blame the sysadmins.
- Calmly walk out of your office and never come back.

Try Again

evolution ...

Projected Change in College-Going Students - 2029 vs. the Present

it's a tough world out there.



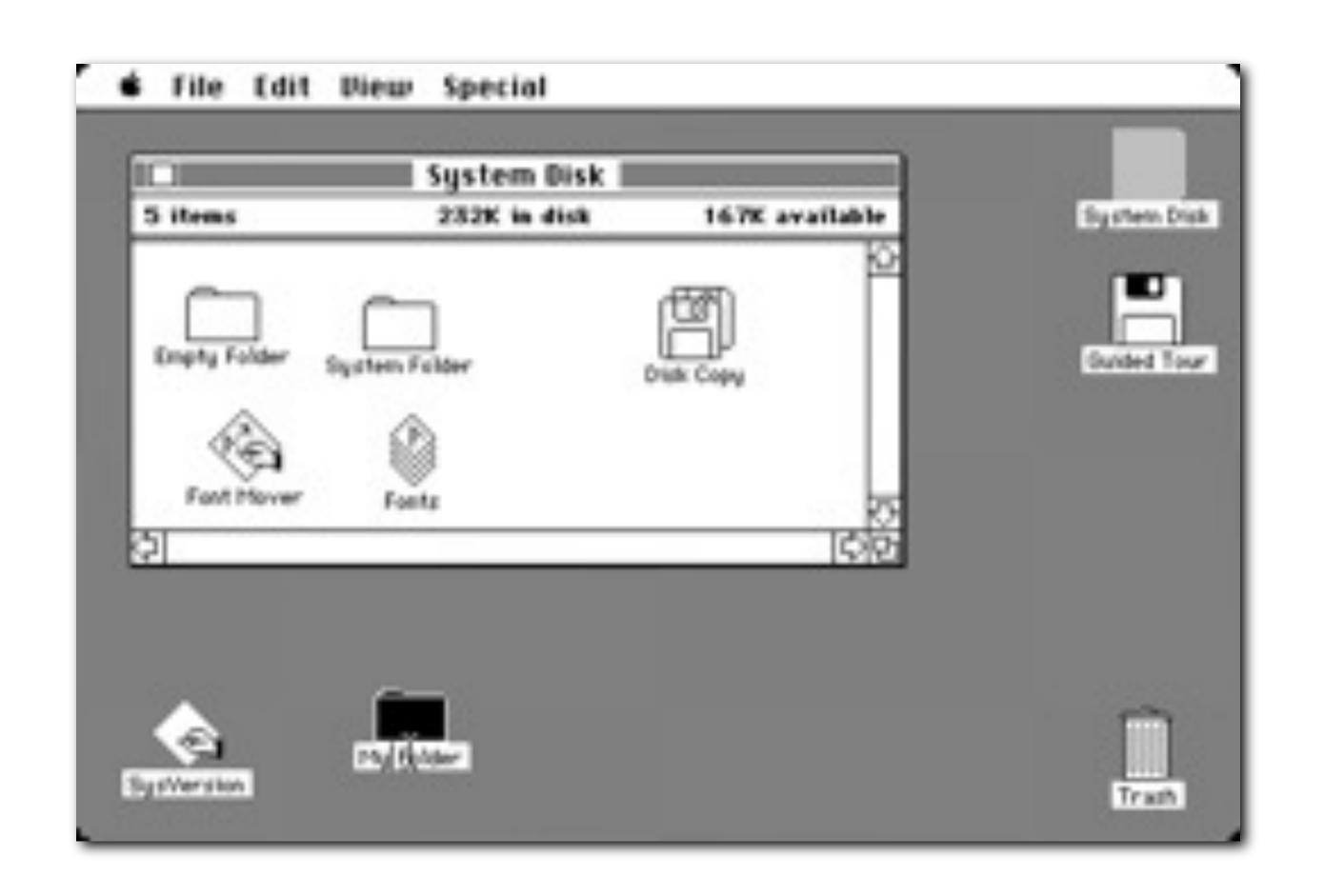
Source: Author's calculations based on the 2011 American Community Survey and the 2002 Education Longitudinal Study as described in Grawe (2018) Demographics and the Demand for Higher Education. Note: Circles represent metropolitan areas.

EconoFact

econofact.org

consistency in ux





"The purpose of visual consistency is to construct a believable environment for users ... the transfer of skills is one of the most important benefits of a consistent interface, especially for beginning users."

-Macintosh Human Interface Guidelines, 1987







Nebraska

Welcome to the Academic Senate

Faculty Governance Working for You!

Mission Statement

- General Information Academic Senate Bylaws
- Academic Senate Rules

Acadomic Souate Office

Description of Committees:

Academic Francism Asset Committee

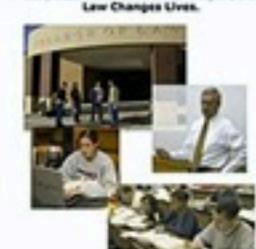
Committee Members:

Academic President Rear'd Committee

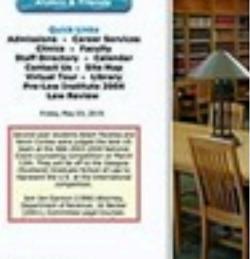
. Constitute Constant Standards Street

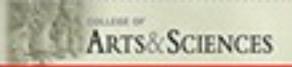
College of Law

Our College of Law has, for over 100 years, produced leaders in the legal profession and in public service. Simplication who have observe to pursual Trans. notice professions can private first hand its time degree to which











About the College

Section about the pulper and there as committee

the sparker and beauty should also be a few participations.

Academics & Research Securitaria, programs, Assested and Arbeits

Alumni, Friends & Community

News & Events

Alterny, related and resources for surrest students

and colonial and colony, need features

Amount and information for properties, all whole the

Graduate Students



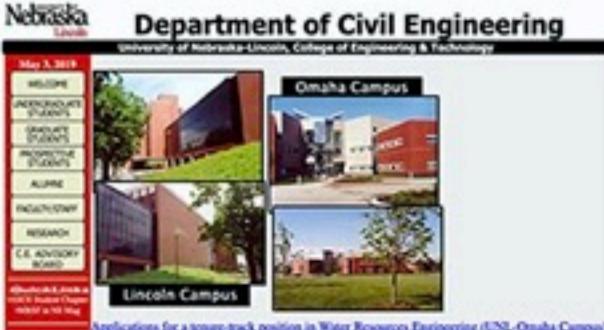
Name ...

April Married

Calculat ...

MICHEL MARKS

30V000X





ficutions for a tenure-track position in Water Resources Engineering (UNL-Omaha Campus)



WORLD CHORD

ardenet full.

student information

academic program.

Pargong streets

student module

Journalism has been a part of the University of Retrisoka Uncoln. curriculum since 1894. A School of Journalism was established as a unit within the College of Arts and Sciences in 1923, Unit the mid-1940s, the School of Journalism offered courses designed exclusively to prepare graduates for employment by nevapapers. Advertising courses were added soon thereafter, and broadcasting courses become evaluate in the early 1960s.

The school became a free standing unit in 1979 and was named a college in 1985. The name was changed to the College of Journalism and Mass Communications in 1993.

The categor's mission dictates a high priority rate for excatent.



Cube magazine

Snallet for

Pullbarr

Notreelitation Feb. 8-11

SITE MAN Department Psychology Vebraska

> Welcome to the Web site of the Department of Psychology at The

University of Nebraska-Lincoln?

Here you can learn about both our

undergraduate and graduate-level programs in Psychology, the faculty and students who work in the department, and how to contact us. Use the menu at left to browse around the site at your leisure. Thanks for visiting!

News: Tenure track faculty positions are available in Cognitive-Developmental and Law-Psych areas.



Lincoln, Please !

ysics & Astronomy

Department - Undergraduate - Graduate - Research - Outreach - NewsElivents



Welcome to the Department of Physics and Astronom at the University of Nebraska-Lincoln

Follow the links above to learn about the Department, its academic programs, research and outreach activities. Visit the calendar of events an up-to-date list of colloquia, seminars and other events happening in Department.

Department of Physics and Astronomy

destroitère desset Tringl of Wateral Reported



Breaf Class Ripe - World Class-Facility. You all here at the Decemby of Nationals Class (CPU) School of National Resources. The School's committed to serving the academic and scientific communities, as sold as the public, government approxim, recourse managers and tenderment. It is becoming a regionally and nationally programmi leader in eculative, research, and achieving service and rudinally programs in refused resource and another method accesses. Please explore the apportunities available today!

Women's Studies

Welcomel

CoJMC

Migmen's Studies is an intendisciplinary with resident mace with courses in history, econology psychology, English, economics, political science, tenthes, health and art that have a special focus on knowledge relating to econon. The goals of Women's Studies are to tagions the contributions of economics all spects of society, to examine the diverse -culture and society, and to integrate a new and broader understanding of women and pender into traditional academic fields.

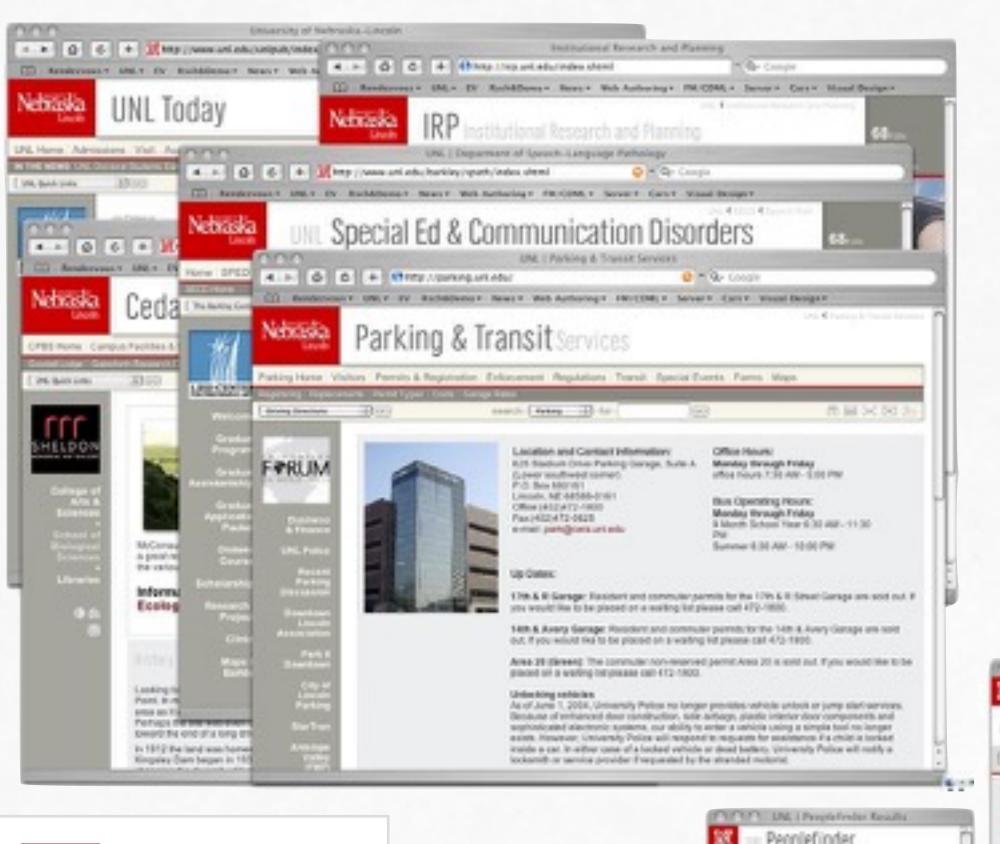
ioner's Studies emphasizes the tersections of gender with other social identifies such as race, social class, ethnicity, atonalty, age, physical ability, and sexual orientation.

(C) 473-6062

Arres & Bree Netrasia

Calendar of Events

Unsupported Plug-In





UNL Web Book

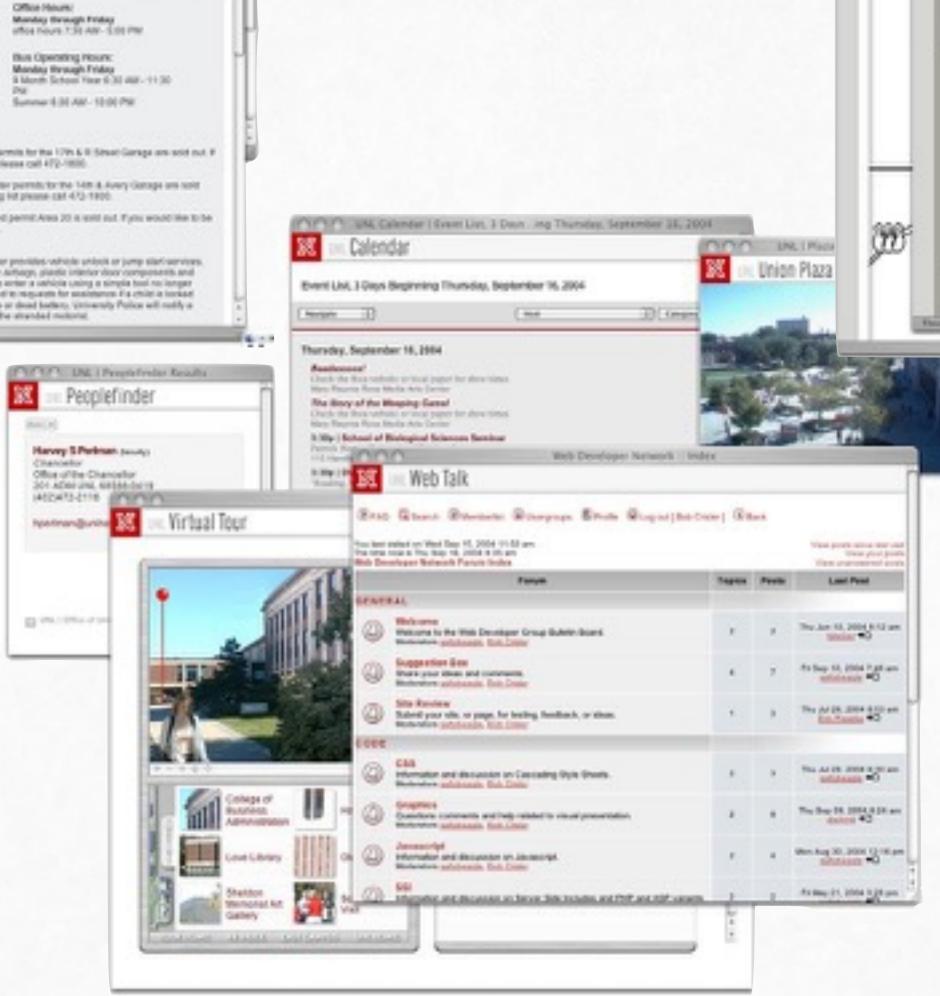
design, coding, rationale

template samples

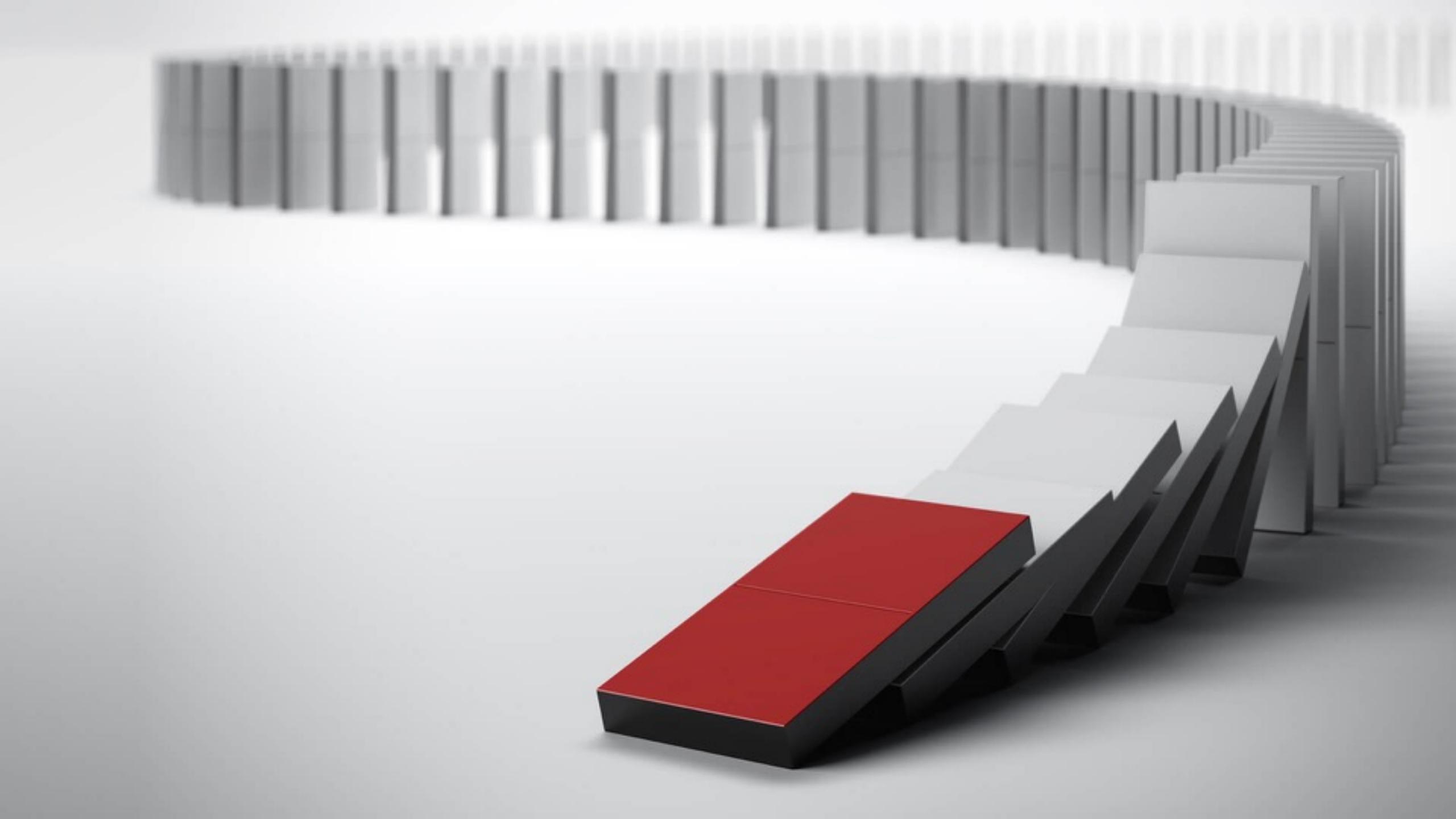
discussion opportunities

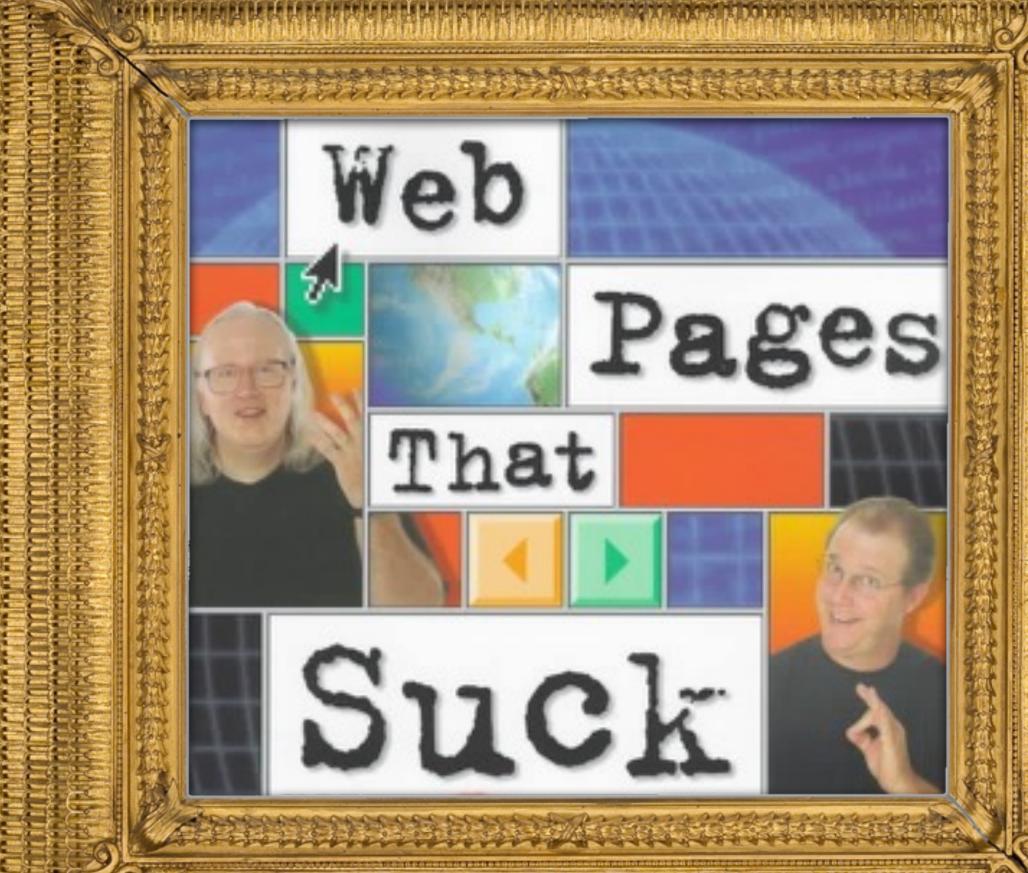
continuing development

UNL Office of University Communication Internet and Interactive Media revision 2 October 2004











AII INGIN

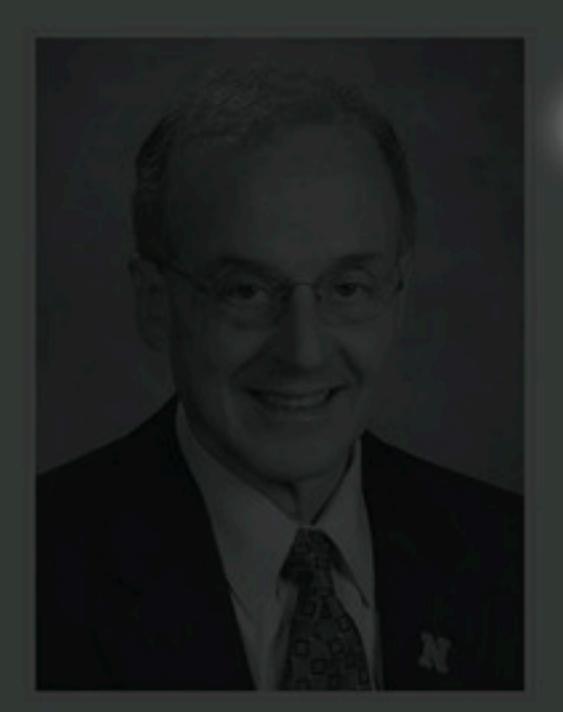
Chancellor's Home Administration Documents Speeches & Remarks Events & News Notes from Camp

Leadership and Legacy

OUR PAST CHANCELLORS

Since its first chancellor was installed in 1871, the University of Nebraska has advanced under a succession of capable, practical—and in many cases visionary—leaders. Some were fortunate to lead in eras of plenty, some were not. Others may have been blessed with greater or lesser gifts of oratory or patience. To all, we owe a debt of gratitude, for each laid a brick in the foundation of our history as a great American university. Below, you will find short biographical sketches of each permanent chancellor.

Literis dedicata et omnibus artibus



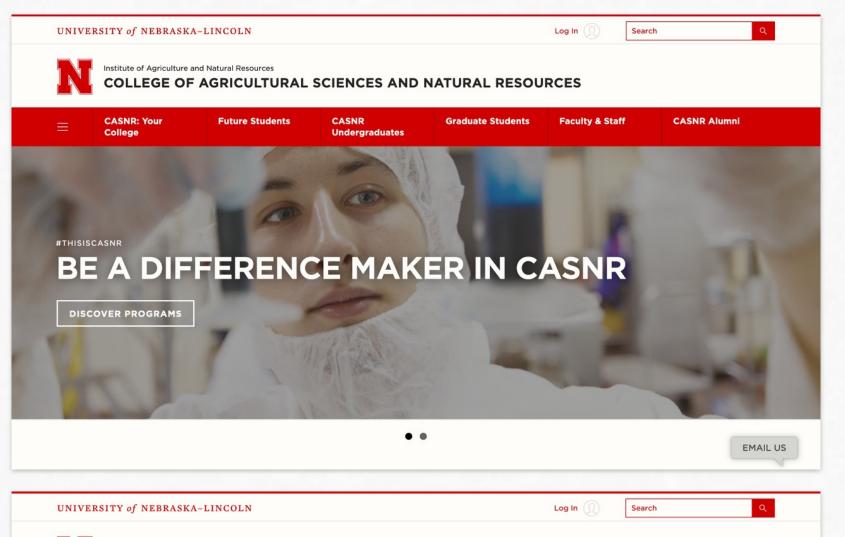
Harvey Perlman

(2000-2016)

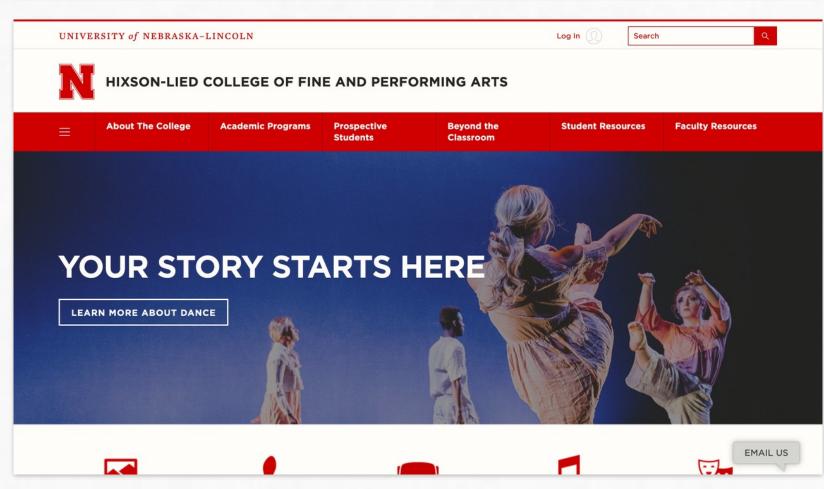
Harvey Perlman served one of the longest and most consequential chancellorships in the history of the institution, and with patience and foresight set the university on new trajectories for upward growth and prosperity. Son of a York, Nebraska businessman, Perlman was himself a product of the University of Nebraska, earning a B.A. ('63) and a J.D. ('66). On his watch, the university built major new facilities, opened a third campus — Nebraska Innovation Campus, was a key partner in major urban renewal projects that would transform the city of Lincoln, and joined the nation's most prestigious academic and athletic organization, the Big Ten Conference.

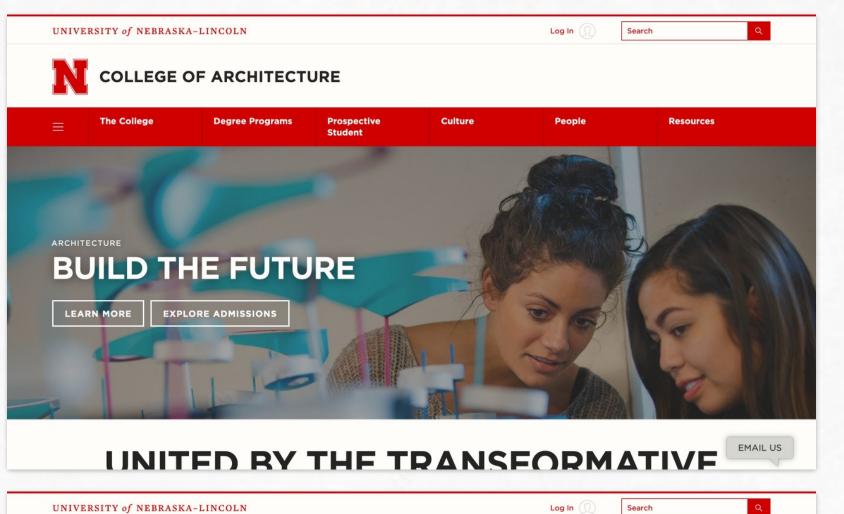
READ MORE ABOUT HARVEY PERLMAN

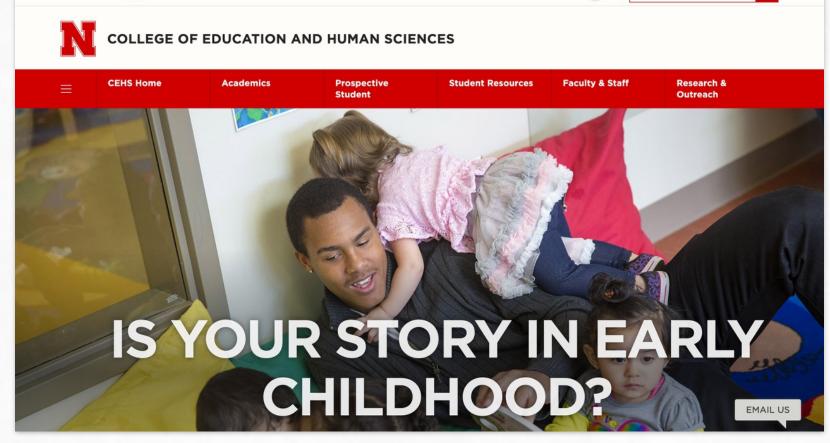


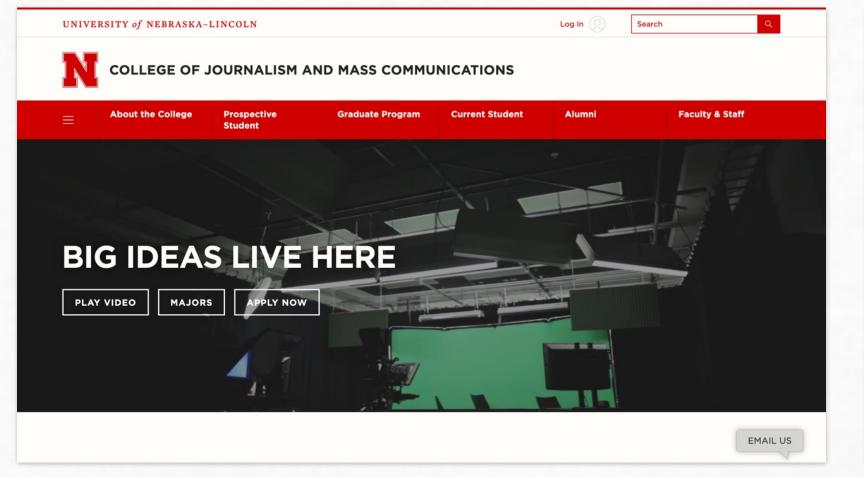


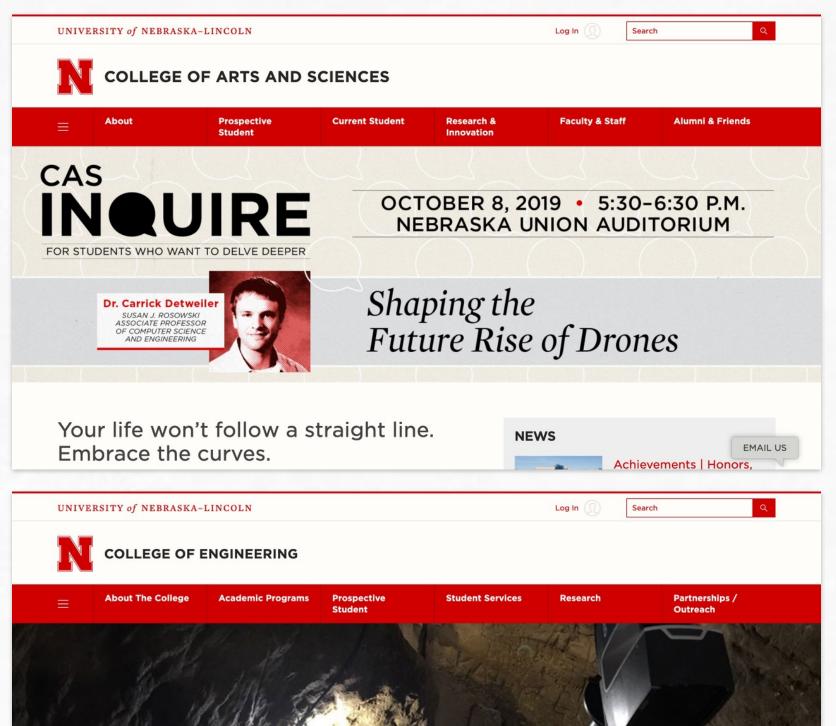


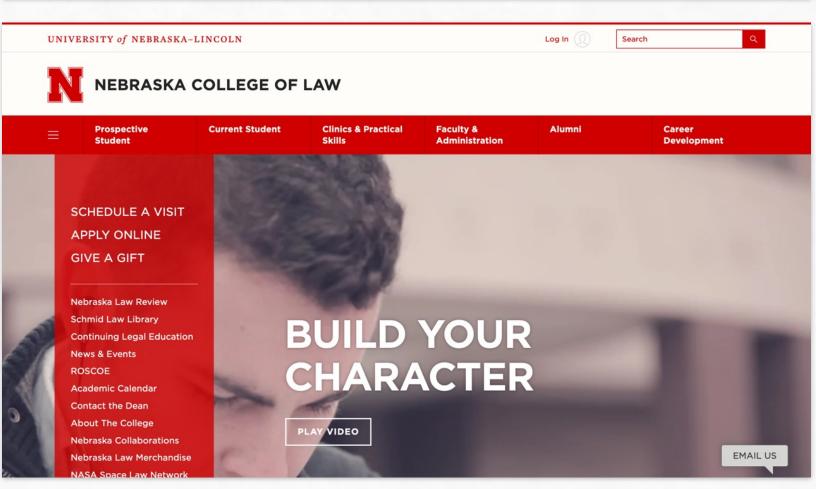






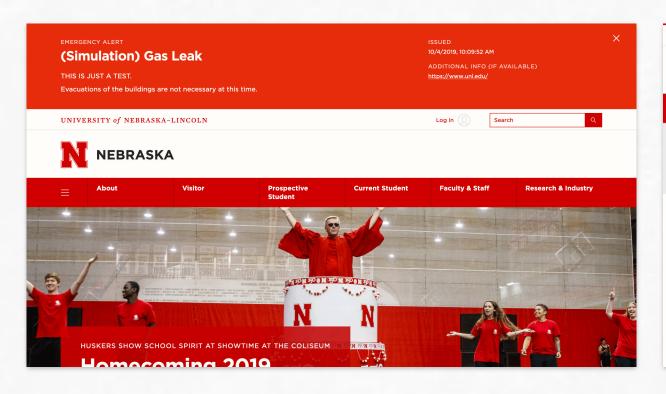


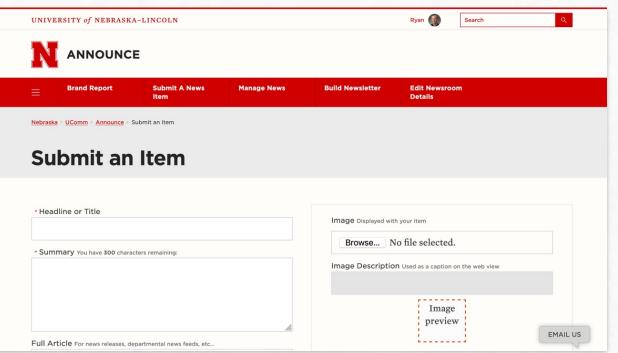




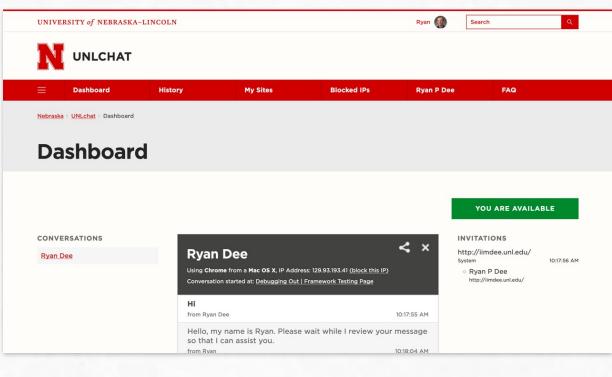
Mapping Robber's Cave

READ MORE

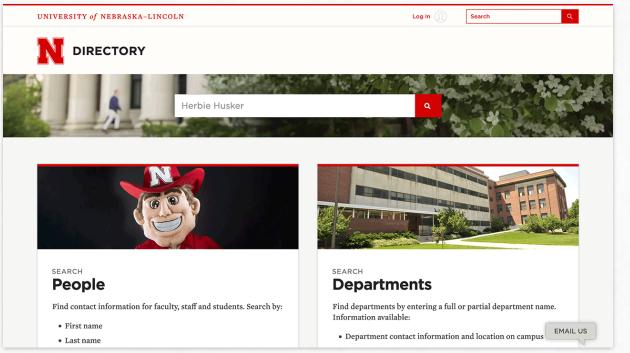


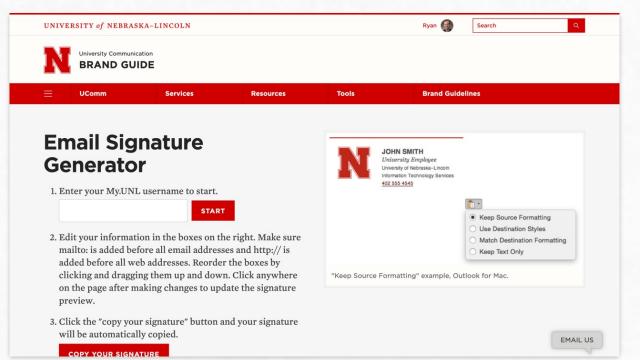


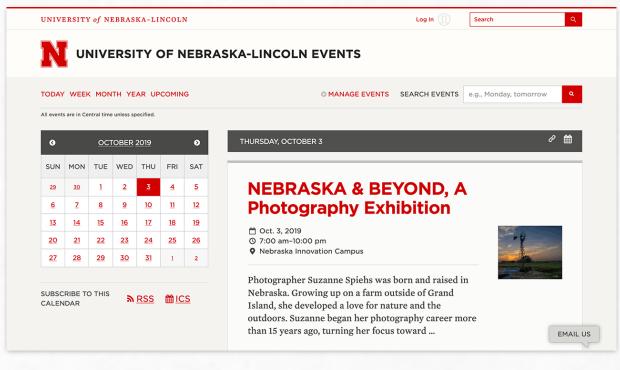


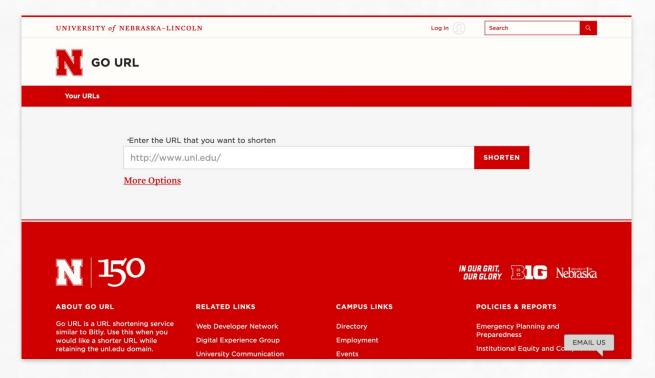


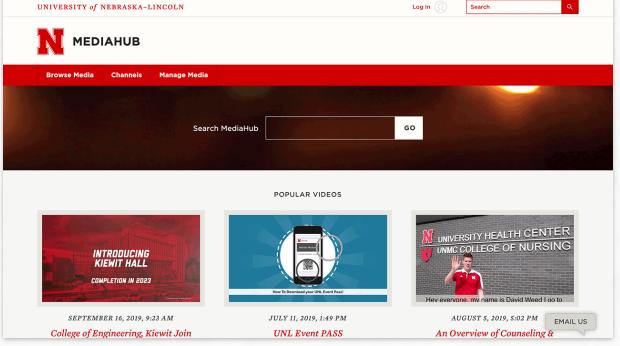


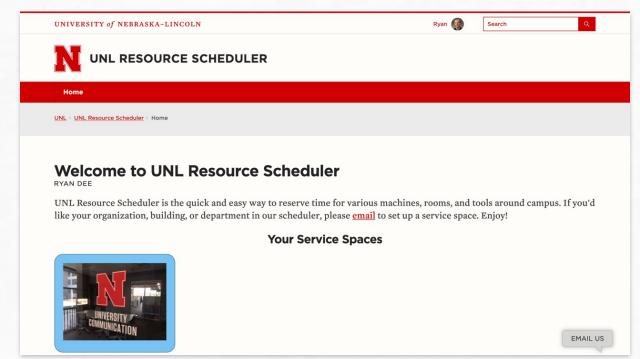


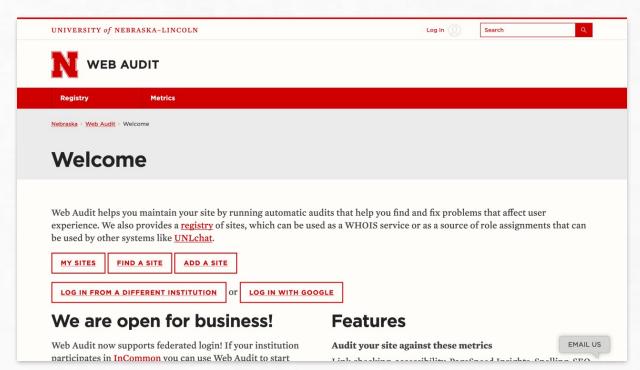
















key elements









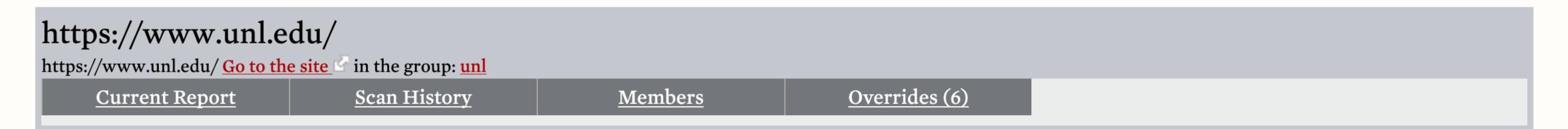




WEB DEVELOPER NETWORK









We found these framework versions:

These are lowest versions that we found on your site

5.0
HTML VERSION

5.0.10
DEPENDENTS VERSION

Self reported progress:

Estimated Completion Date

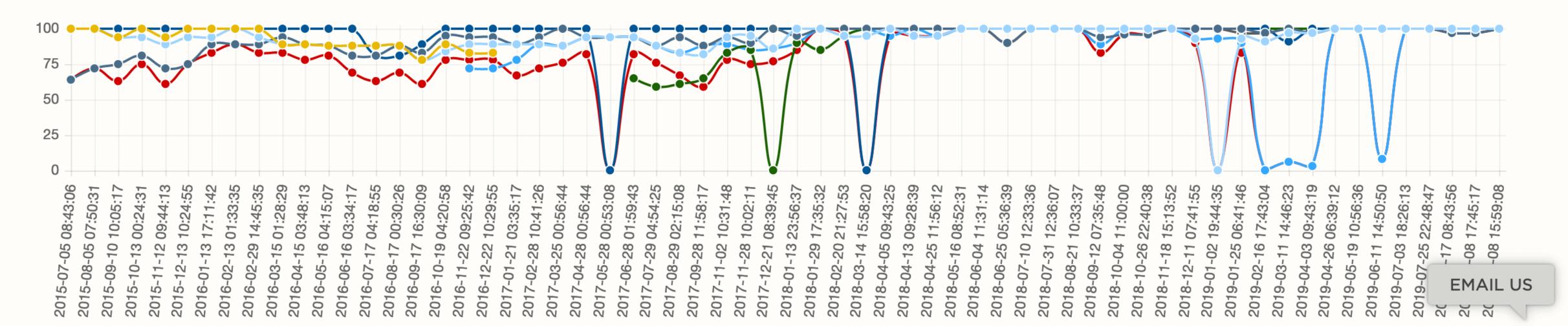
Estimated Progress

0%

Comments

SEE WHAT VERSIONS WE FOUND

Site History





Communicate; broadcast your expertise

Communicate to your university community; as each is different, there is no attempt here to prescribe what tactics might work best in your institution. Here are a few worth trying though:

- a regular blog on all things web, including, of course, your site
- an email to the university community (perhaps tied to a blog for longer reading)
- your web organization's website
- presentations to campus communicators group, admin and org groups
- an annual report

Research outcomes and report

How does a one-website approach tie in to larger issues of communication effectiveness, information services delivery and organizational efficiency?

- Find some measures; some may be speculative
- use GA to track goals and assign values to those goals
- track SEO rank, and especially how it trends over time
- do a budgetary analysis, even if inexact science

Still not convinced?

Well, consider the following:

- 12 years in, we've deployed four major redesigns, among 114 releases with over 6800 commits. At each major redesign, most of our major academic and business units were transitioned within hours.
- when new technologies mature, we can move ... we were able to implement responsive design and CSS Grid as part of those redesigns
- We've been able to stand up and maintain vertical apps for every imaginable type of public information.
- We can keep our institutional identity in sync

What's the next level?

Level 1 was consistent branding and UI

Level 2 creating an ecosystem for public information

Level 3 (what we're working on now) is the portability of the ecosystem, and personalization of interface and data.





none of us is as smart as all of us

(questions?)





Introductions...

We're here from the University of Nebraska-Lincoln.

I'm Bob Crisler, director of the Digital Experience Group, our university's core web team, which is part of both ITS and UComm at our university. Way back in 2000, I became the first FTE assigned to development of the website. I've led the effort ever since, and a lot of great players have stepped in, and stepped up as the job of building the website has gotten more complex and expanded to a web of specializations. Aaron?

I'm Aaron Coleman. I've been working on the web in some form since 1994, and I joined the Digital Experience Group web team in 2004, right about the time the ball really started rolling on everything we're going to talk about in our presentation.

BC

There are certain moments when things change in life. The one that really made a huge difference for us was in August of 2005, when then-chancellor Harvey Perlman called my office.

Over time this one phone call changed our path ... which led to the mandatory use of a consistent web template at Nebraska and got us thinking in much broader terms about what that meant with regard to a unified web presence, a development community, and governance. To our knowledge, we were the first large institution in American higher education to take this path, and we've been able to do some very powerful things in the past 13 years using this foundation.



BC.

So, we're from Nebraska. The Big Red. Our colors are scarlet and cream \dots

Here, Coleman plays me, and I play the chancellor. Poetic license is taken: this is the way I heard that call.

So, it's August of 2005. In the middle of the morning, the phone rings.

HARVEY PERLMAN:

Hi, Bob. This is Harvey. Why am I looking at a BLUE website at our RED university?

BOB CRISLER:

(stammering) I don't know of a blue website. What website is it?

HARVEY PERLMAN:

Department of -redacted-

BOB CRISLER:

(keyboarding quick to bring up the site) Oh, OK ... yeah, that one. They don't use the templates.

HARVEY PERLMAN:

I thought everyone was supposed to use the templates ...

BOB CRISLER:

Sorry, No, so far they've been voluntary.

HARVEY PERLMAN:

Well, that needs to change. Let's make them mandatory.

AC:

So... the Chancellor made them mandatory, everyone adopted the template by 2008, and it's been smooth sailing ever since.



AC: Thanks for coming to our talk today. (begin walking off)

Actually, it wasn't quite as easy as that. When we've told this story to others in the past and when we've consulted with other universities, the first reaction is usually, "I wish we could do that here, it would make my job so much easier."

While it's true that we could have never done what we have without his backing, on the flip side is that the phone call was just the beginning of the hard work for us. It was our job to minimize any involvement he had to have from that point on.

We'll get into more about what we've done in that time with regard to community and how we leveraged the chancellor's backing into something sustainable, but first we'd like to posit a thesis for all of us here.

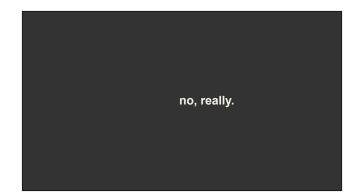


AC: Every university now has two distinct campuses: the physical and the digital. The website is the core of your digital campus. Its importance can't be overstated.

It becomes more important every day. It needs to be maintained with as much attention and care as our physical campuses. Maybe more.

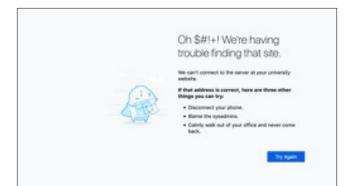
It needs to be on-point in identity, easy and memorable in interaction, and sustainable in practice. It requires thoughtful planning and sustained investment.

This means your job is really important.



AC: No, really.

Imagine your university, and then try to imagine it, right now, in October 2019 without a website.

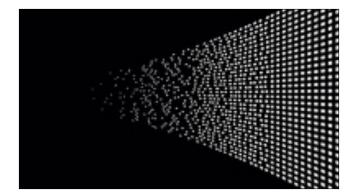


BC: Sometimes we don't have to. We don't mean for it to happen. But outages happen. When they do, we come face to face with that reality in the here and now. Unfortunately, its sometimes only at these junctures that _everyone_ realizes the value of the website.

Websites really, really matter. Our institutions literally cannot function without them. Each page we serve has a human being on the other end, actively requesting it, for a bunch of different reasons. If the site is down, prospectives can't find the information that helps them make their college decision. They can't apply. Students can't turn in assignments. Or register for the graduation ceremony. Faculty and Staff can't turn in expense vouchers. And on and on ... all of that and more is online and mission-critical in a way we scarcely would have imagined 20 years ago.

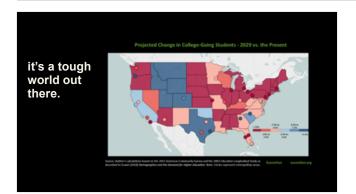
Still, our websites are often taken for granted, as more transitory communications tactics divert attention and dominate value perception. How that gets rebalanced is an ongoing conversation, and we'd sure like to hear your ideas after our talk this morning.





AC:

We view the evolutionary path as inevitable: even if our institutional websites started as a hobbyists' paradise, they will eventually be highly consistent, strategic and increasingly mission-critical. We've always tried to live by the old Wayne Gretzky adage: "skate to where the puck is going to be." If you agree that consistency is where your website is headed, you might as well help it get there.

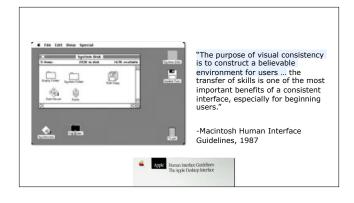


RC.

Perhaps more to the point. You're probably all familiar with the impacts that demographic and population shifts will have on higher education in the coming decades. It's been well-publicized. Effectively, what this means in our world is that communicating outside our state borders to national and international audiences will become more and more important over time as we seek to find new students and communicate with a global alumni base.

It makes sense, at least to us, to be singing as much as possible out of the same hymnal.





BC:

Both Aaron and I came up in a print design world. In the mid-1980s, enter the Macintosh. Before the Mac, operating computer programs was a lot like working in Terminal today. It certainly wasn't something for mere mortals.

The Mac was different. It was simple. It was revelatory. It just worked.

It was those things because it was consistent. Even today, the 'File' and 'Edit' menus are on the left in almost every Mac and Windows program. We mention this because this user experience concept — consistency — remains durable today, 35 years later. Frankly, it's been around forever ... the brake pedal is to the left of the accelerator in a car — always, even in British cars where the driving position is reversed

Consistency is a core value of user experience. Why should our websites be any different?



ΔC:

Still, ten years after the introduction of the Mac, the year the web became a "thing" with the release of the University of Illinois' Mosaic graphical browser, some — and most especially those on our campuses — said "let a thousand flowers bloom."



AC:

But mostly what we got were weeds through every crack. Worse yet, each weed had a different owner.



AC:

Here are some of our thousand flowers in 2004. There were a lot of freelancers out on the domain. Some sites had minimal or no university identity at all.

Returning to that earlier phone call, the site mentioned by the chancellor was hardly the only offender. So.... Here's a bit more about the road we took to a unified website.



BC:

Coleman, Coleman. It wasn't THAT bad. The previous slide highlights some of the worst offenders of that particular web era, but our situation wasn't QUITE that dire. We had a template, and it had decent adoption, but it wasn't universal. And that's really the point. If your website is half one thing and the other half is a hundred different things, well, it's still a hundred and one different things.

We weren't starting from zero the day of the chancellor's phone call.

In 2004 our campus web community, the UNL Web Developer Network, was a year old. We were that fall in the middle of our first concerted push for greater consistency, where arguments were presented at many forums on campus — including with Deans — in favor of taking a more mature approach to the overall website. The images above are from a publication, the "UNL Web Book," which was created for that fall 2004 effort. It argued, cajoled and attempted to persuade the campus community on the need to have a common interface, to come together around a common template.



BC:

As noted though, the chancellor, and his backing, was the catalyst for us.

You'll remember that the chancellor wanted to make the then-current (and voluntary) template use mandatory. I knew this wouldn't go over well, so the way that call really ended is that I asked him for a few weeks to put a plan together that would go over with the least amount of friction. We came back to him with an outline of a stakeholders group and a parallel development group, and a process that would give us a new design by the start of fall 2006.

AC

For the design, we opened a competition to all developers on campus. 54 designs were created, then separated into three general visual categories -- casual, modern and formal -- and those were distilled into 3 distinct prototype designs, with a group and lead designer for each. The eventual winner was informed not only by WDN votes, but by what was the largest web survey we've ever undertaken, with over 8,000 written responses from faculty, staff, students, and even alumni (sheesh, we really need to do something like that again).

BO

The winning design was created by someone who wasn't even in our unit / department. He was another Aaron, but he was from Housing. Why was this important? It put the exclamation point on it: our website is a university-wide effort.

Developers were given a year to implement the framework (for those already using the voluntary version, this, of course, was much easier), and by the first day of fall classes 2007, almost all colleges and departments had switched to UNL Framework 2.0.



AC:

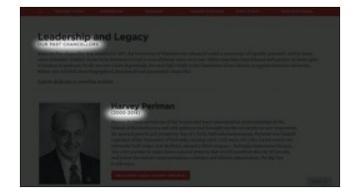
Sometimes you get an assist from the most unexpected source. By the spring of 2008, we still had one holdout among colleges. We'd done the work on a new site at the chancellor's expense, but they wouldn't, finally, say yes to making it live. Fortunately, the site Web Pages That Suck really didn't like it. Really, really didn't like it. So we received an email one spring morning pointing to Vincent Flanders' Youtube video. He pulled no punches. Of course that email went right to the chancellor. ;-) We think he took some delight because by the next day we were told to move forward with the new website; it was done by the end of that day. Flanders re-posted a video noting the change to a "normal" website.

We don't want to name names and shame them even further after 11 years, especially since they've been good partners since — and notably leadership has changed over several times — but you can still find that site locking down the (honorary) No. 1 position for 2008, under the categories of WTF? and Navigation. http://www.webpagesthatsuck.com/worst-web-sites-of-2008-navigation.html



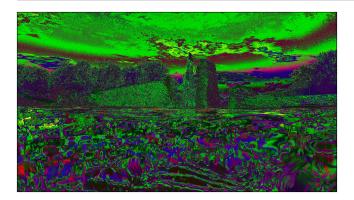
AC:

So, as of mid-2008, everyone was in the same template, so everything is awesome, right?!



AC: Sort of.

It's true that without the chancellor's backing, our trajectory up until now wouldn't have looked nearly the same, but Chancellors and Presidents don't always stay in the job forever, so how do you acculturate something that endures?



ΔC:

It's been a near-constant ebb and flow of community, governance, advocacy, and honestly, creating the path of least resistance (flanked by awesome guardrails).



вс

Here's where we stand today. A bit of background on the scope of our framework. At our university, web development is largely decentralized.

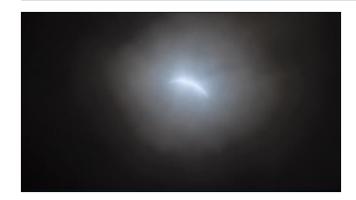
<u>UNL.edu</u> delivered over 100 million page views last year*from tens of thousands of distinct <u>UNL.edu</u> URLs to people in 240 countries and island territories. 27 percent of our visitors come from outside the United States. Even within the U.S., two-thirds of visitors are from outside Nebraska.

There are roughly 800 web sites on the <u>unl.edu</u> domain (defined as having unique information architectures). The majority of these are in our Drupal-based CMS. Our framework, though, is separate from the CMS or any backend. We have sites running on everything from Wordpress to home-grown CMSes — but all using our framework and updating it monthly.



We also have a large suite of web applications, including our CMS, a directory of people and offices, a media repo and player, maps, events, a chat system, and several others.

These apps, along with the aforementioned single framework, are all administered by our unit, so we have a lot to wrap our arms around, and we're able to do it efficiently and with modest resources, because we get a *lot* out of scale and consistency.



AC: So, the phone call was our catalyst. What will yours be? As mentioned before, we believe that a majority of higher ed sites will converge to be more consistent and on-brand.

Every evolutionary path unrolls on a different timeline. Now we'll go into depth about some of the things that we've done along the way that were successful, and could be put into action just about anywhere you are on your journey.



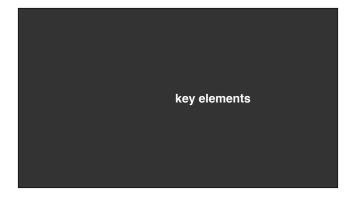
AC: If you haven't hit that inflection point yet, these are some things to think about.

As we mentioned before, branding and identity were the main driving forces behind the directive for us to move to a unified site, but there are a *lot* of benefits to this approach:

code reuse is an effective strategy for minimizing surface area, there are big benefits for both accessibility and security your university brand is enhanced by consistent presentation

Your site's usability is also enhanced by that same consistency

Once you have a unified framework, all of the above scale





AC: First up, Community

This is the biggest one, because it involves so many people of different opinions, abilities, and frankly, pay grades and influence.

Needless to say, this takes work at all levels, and depending on how web development is structured at your university, this can take many forms. For us, it's been a mixture of online tools, documentation, in-person help, meetings and collaboration, governance, advocacy, and even a bit of self-promotion (although being from the midwest, we're not always great at the last part). In all of these interactions, keeping an even keel, dealing humbly with criticism, and having plenty of empathy goes a long way.

Let's start with the most basic user.



BC

Content editors / administrative assistants. This is the group that is using the tools that you've built, but may not bring much technical ability to the table. Editing their website often falls in their job description's five percent under "other duties as assigned" and they don't have time (or want) to do deep learning of code or tools.

Challenges:

If things don't work like they think they should, they will complain — and their complaints will often go to other people in their area before they ever reach you. If there are a lot of these complaints, they can build into something of a critical mass and it can become a political problem.

Opportunities for success:

Give them tools to make it easy. Training. Highly-guardrailed edit interfaces that allow for edits without touching any raw HTML, without breaking things. Keep an open Slack room that is monitored during working hours by us and members of our web community. The peer coaching that happens there can really be great. Listen to their issues and take them seriously. Set aside a few hours for direct help; some people just need that kind of support.



AC: Stepping up a level. Developers: This is the group that knows their way around code, around how web pages are built and the technologies that are used. Some may be contributors, which is something we want to continuously encourage.

Challenges: Various web devs not on board with ideas and in very rare cases even going so far as subterfuge (again, I stress this is very rare!). As things have become acculturated, this has really not been an issue,

Opportunities for success:

You can create allies, as well as a group willing to contribute ideas and code. But first, you must create base code that is unimpeachable. Make highly researched choices, but also accept criticism and allow avenues for collaboration and contributions. Recognize talent (even if it's not in your unit) and empower them (through acknowledgment in meetings, implementation of ideas, or other ways).

Having the Web Developer Network meetings for communication and especially an elected Shared Governance Board have allayed a vast majority of the issues we used to have in this area.



BC:

Communicator / Administrator: This is the group that isn't using the tools you've built, but are either in charge of content and / or branding or just have general opinions about how things should look and function. These are generally high level people.

Challenges:

Don't like the design. Can't be creative or express their unique college / department / unit in a template

Opportunities for success:

On a visual level, we go through a redesign process every three years to alleviate some of these concerns, with monthly updates along the way that often introduce new components.

Advocate! The website can often be overlooked, even though it's the most important communication platform that your University has. When you can, show numbers, remind that each touch is something that was requested by a user. Reiterate that for many prospective students they want to reach, the website is their first impression of your University (the digital campus). Don't overlook the importance of your web internally, as noted before, your university cannot function without it.

Build Allies! For example... A college dean went out on a limb with us when we were launching a previous version of the framework while at the same time moving into a new CMS. It went successfully, and because they were first adopters, they had a shiny new website first out of the gates, and a model for how things could work for everyone else. And, by the way, that site won a CASE national silver award for design.



AC: How to start? Don't worry if it's small, just do it. If there's no one taking leadership, well... it's your time to shine. Fire up a bulletin board or a slack channel and start building and sharing ideas and coalescing around the best ones.

We started with a bulletin board, then moved to HipChat, and now now on Slack. Throughout that time, we've set dedicated hours of 8 a.m. - 5 p.m. for responses ... the web community that monitors that board will handle user questions this week; as four of us are presenting at this conference.

 $If everyone spends \ less \ time \ rebuilding \ the \ wheel \ you \ can \ put \ more \ effort \ into \ building \ the \ best \ dang \ wheel \ out \ there.$



BC: Our efforts started with a simple "Web Talk" bulletin board for developers, but by 2003 had morphed into the Web Developer Network. For reaching the majority of our users, this community has been our bedrock over the years. It has met every second Tuesday at 2 p.m. since 2003, and today it's one of our university's oldest and largest professional associations. It's our best two-way communication medium between our group and the distributed development community (although, anyone is invited, and we've had everyone from communicators to department heads attend).

In addition, we're able to work on the following:

- · shared direction-setting
- issues and technology management (whither Flash, what's the future of PDF?)
- · bring comments and criticism into the open for resolution; we try to convert any negativity into positive contribution
- · organizational efficiency and cost

Associated with this is a website where we post meeting notes, blog posts with important announcements or ideas that need further consideration, and lots of documentation related to the framework.



AC: The Web Developer Network Shared Governance Board has been in place since 2015, and as officially stated, the goal is "To empower and advance web development at the University of Nebraska–Lincoln to create leading, user-focused web experiences."

The "Shared" part of the title is key here, as there are 9 people on the board, with only 3 from our office, meaning we could theoretically be out-voted on decisions regarding the framework that we administer (although it's never come to that point ... and if it did, good, because we must be screwing something up). With this board, we're able to:

- · Solicit user and stakeholder feedback
- · Cultivate quality website stewardship
- Prioritize and administer framework and public information applications
- · Continue development of the Standards Guide and its associated Web Audit tool
- Audit university websites according to Standards Guide and, when in extreme cases, Communicate specific issues and recommended remediation and enforcement actions

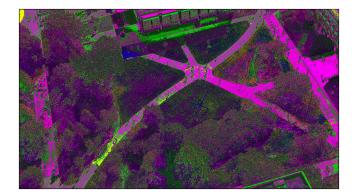
Elections have been remarkably organic, with developers who attend meetings / help the most in chat having largely received the most votes over the years. In addition to decision-making power, it's another way for developers to be internally recognized by their own peers.



BC: We mentioned auditing as a role of the Gov Board. Obviously we can't do all of that by hand. WebAudit was launched in 2015 and is an automated site scan that checks sites for framework version, accessibility, broken links, spelling, SEO, and HTML Validation. Sites are checked once a month automatically, but can be queued more often.

Auditing websites is key not only for consistency, but it also encourages deeper learning of code and best practices, and allows those with more initiative to advance their abilities.

Before I jump to our next section, I should mention that Webaudit is open source and several schools are currently using it.



AC: Infrastructure.

Again, think beyond CMS here. What sort of foundations are being built that can be used by web or application developers at your university, regardless of the technology? Your users don't care what is running underneath, they just want to accomplish their goals with the least amount of friction possible. The more you can keep familiar interfaces and interactions in front of them, the more fluid those transactions will be, which helps from recruitment to retention and even reputation (we've had multiple focus groups with students who told us they eliminated college choices simply because their websites were too confusing).

A key part part of infrastructure (and the part that sometimes isn't that exciting) is documentation. Gather your research and present it. Document meetings. Document decisions. Document guides for using your tools and make sure they're understandable. We want to make it easy for the end user, but also for the user who is developing in the framework.

We recently split our foundational design elements into a completely separate entity called the Digital Campus Framework as we've found ourselves increasingly needing to collaborate with the other institutions in our system and support sites for affiliates of our University, like the Sheldon Museum of Art and Nebraska Federal Credit Union, among others. By doing this, we're able to consolidate even more core css into one lightweight codebase and layer "themes" on top of it. Again, we should mention that this is open-source with more information available at digitalcampus.us

Communicate; broadcast your expertise

Communicate to your university community; as each is different, there is no attempt here to prescribe what tactics might work best in your institution. Here are a few worth trying though:

- a regular blog on all things web, including, of course, your site
- an email to the university community (perhaps tied to a blog for longer reading)
- your web organization's website
- presentations to campus communicators group, admin and org groups
- an annual report

BC: Expertise

This is something we could get so much better at within our own institution, but maybe presenting here today is the kick we need. At a university, leadership is earned through a perception of domain expertise. In the past, we've occasionally had somewhat contentious interactions with administration and even faculty (and coined the term "wide-spectrum PH.D" to describe their opinions), but these have largely been defused by presenting data from a third-party source or the vote our shared governance board.

Communicate to your university community; as each is different, there is no attempt here to prescribe what tactics might work best in your institution. Here are a few worth trying though:

- · a regular blog on all things web, including your site
- an email to the university community (perhaps tied to a blog for longer reading)
- · your web organization's website
- presentations to campus communicators group, admin and org groups
- · an annual report

Research outcomes and report

How does a one-website approach tie in to larger issues of communication effectiveness, information services delivery and organizational efficiency?

- Find some measures; some may be speculative
- use GA to track goals and assign values to those goals
- track SEO rank, and especially how it trends over time
- do a budgetary analysis, even if inexact science

AC: Outcomes

What will a one-site approach accomplish for the institution, and can its effects be tracked and reported on?

This is one of the hardest things to measure, and one of the places where we have the most room for improvement.

How does a one-website approach tie in to larger issues of communication effectiveness, information services delivery and organizational efficiency? Find some measures; some may be speculative use GA to track goals and assign values to those goals track SEO rank, and especially how it trends over time do a budgetary analysis, even if inexact science

Budgetary analysis can included cost of site creation x number of sites x number of redesigns in a certain amount of time.

For example, several years ago we broke it down for our University, estimating a very conservative 3k per site (if the site were to include proper code validity, accessibility, security, etc) multiplied by 800 (the number of sites we have multiplied by 2 redesigns (again, conservative) over a 10 year period. 3+ million may not seem like a lot of money in a world where 8 figures are spend on new buildings, but it can go a long way when put towards further refinement of your framework, new content creation, or a score of other things.

Still not convinced?

Well, consider the following:

- 12 years in, we've deployed four major redesigns, among 114 releases with over 6800 commits. At each major redesign, most of our major academic and business units were transitioned within hours.
- when new technologies mature, we can move ... we were able to implement responsive design and CSS Grid as part of those redesigns
- We've been able to stand up and maintain vertical apps for every imaginable type of public information.
- We can keep our institutional identity in sync

BC: If we still haven't convinced you this is a direction you should be moving, consider the following.

12 years in, we've successfully deployed four major redesigns (114 releases with over 6800 commits), literally shifting the look and feel of all college, unit and department sites in a matter of hours / days at each transition; as one example, when our logo changed to align with the athletic mark, we were able to make that switch, over all of these sites, overnight.

We've been able to take early advantage of new web technologies such as responsive design and CSS Grid, and we've implemented a community and shared governance structure that supports alignment and shared ownership of the web framework and suite of developed public information apps (CMS, calendar of events, media repo, maps, and more.).

Along the way, we were awarded the last of eduStyle's Best Overall Website awards, and we continue to achieve consistently strong marks on accessibility and site performance.



AC: What's the next level?

Approaching a site as a unified whole changes the conversation, and the thinking. For us, templates were first. The deliverable there was pretty simple: consistent branding and UI.

Once that was in place, we could really set ourselves about the question of an ecosystem or infrastructure. So that was our second level. And that's when we started replacing the word "template" with "framework;" a template is just one part of it. For instance, integrated and serialized data and content and tools ... things like chat, events, emergency alerts, login status and other data feeds pulsing across the unified framework.

Third (now, and next): portability of ecosystem via separation of concerns (framework + theme), personalization of interface and data. One example of this is a universal notification center which will be available via any page of the site when a user is logged in. Students don't pay much attention to email, but what if you aggregated all notifications into one interface and displayed that entry point (with a badge to indicate the number of notifications) across the thousands of pages in the website?



BC: OK, we've been at this for 13 years now and we've done all this... stuff.

But... we have a lot more we can (and need to) do.

So much.



We need to occasionally consider what we do to be newsworthy. And if it's not newsworthy on an institutional scale, at least we can extend our thought leadership by blogging regularly. Gunderson note.... Thought leadership is an important commodity in our environments, and we don't really need a PhD to have it. Smart people will engage with smart ideas. We just need to spread our ideas.

We need to build relationships — real working relationships — across higher ed. At any of our universities, and in any situation, our resources are finite. And needs are nearly infinite. One thing we'd like you to know is that all of our work, all of our public information apps, our entire ecosystem, is open source, and we always welcome active partnership on it. Hit any of us up on that at any time here at the conference or in the months ahead.

We need to listen more. You knew we were going to say that. But really, how do we gain knowledge of what will move others? Where do ideas come from? We need to survey audiences, maybe even annoyingly, and publicize the results, maybe in those blog posts or reports mentioned earlier. And today we're here in a room with some of the brightest folks in higher ed web development, and we have a few minutes, so ...

none of us is as smart as all of us

(questions?)

... what are your thoughts?

This is the same slide we end all of our Web Developer Network meetings with, and we figured it apropos here.

Thank you all for coming to our presentation today. Any questions?