The UX Playbook for

Post-Secondary & Higher Education

Content

00 Introduction

1/3 Preface

This playbook is for anyone at your college or university involved in the continuous improvement of core digital properties. Though recruitment-focused, public-facing websites are the primary focus, other properties such as portals and mobile apps will benefit as well. Our hope is that project sponsors, designers, developers, recruiters, IT staff, and marcom team members are able to take something from this playbook and begin using it today.

We developed this playbook because the student experience is increasingly digital, and the website is the main gateway into that experience. Happiness with your college or university is shaped by the value, usability, accessibility, and appeal of your website. For prospects especially, your site forms a lasting impression of what the student experience will be like.

2/3 How to use this playbook

This playbook is organized into four sections to correspond with our Four Pillars framework: Value, Usability, Accessibility, and Appeal.

Each of the four pillars has a set of principles or general rules of thumb that serve as a checklist ResIM uses to evaluate the quality of a PSE site's user experience.

Included throughout this playbook are recommendations refined by ResIM over the course of many PSE projects. We look forward to hearing how these are used. We look forward to hearing how these are used.

What is not included in this playbook:

- SEO & SEM
- Social Media
- Content Governance
- Technology and CMS Selection

3/3 Four key qualities of a great user experience

Value

Value addresses strategic questions around who uses the site and why. Most organizations know the answers but fail to keep their sites focused, as features and content sprawl to satisfy various stakeholders.

Guiding Value Principles:

- Address an identifiable user need from user's perspective.
- Add value by addressing secondary needs relevant to key tasks.

Usability

Usability determines whether or not people continue to use and trust your site. A site may have great content and the requisite features but if it's unusable the value will not be realized. Usability is a conduit for value.

Guiding Usability Principles:

- Focus user attention on completing key tasks.
- Use language familiar to entire target audience.
- Anticipate all possible usability challenges and needs.

Accessibility

As digital technology increasingly becomes the primary way you engage with customers, it's important that sites and applications are accessible for everybody.

Guiding Accessibility Principles:

- Make content and features accessible on users' preferred platforms and devices.
- Accommodate diversity by enabling all types of physical and language abilities.

Appeal

For a site to be good it must be valuable, usable, and accessible. Great sites go beyond that to appeal to users aesthetically and emotionally. Appealing sites are what people remember and actually look forward to using.

Guiding Appeal Principles:

- Provide instant aesthetic appeal.
- Engage users through interaction and feedback.
- Create a memorable sense of accomplishment.

01 Value

Address an identifiable need from the user's perspective.

Organizations often take for granted that they understand the needs of their users and customers, but those needs are continuously changing, sometimes too slowly to notice. It's important to periodically articulate what the latest cohort of users wants and needs to make sure everyone is on the same page.

For example, colleges and universities now compete with a sea of online learning options. While these may or may not compete directly with what you offer, they are actively shaping expectations of what an education institutions public-facing website can and should be like.

In some cases it's not just the users that have changed, but the institution and its products have evolved to attract a different type of person. Consumers of online learning have different needs from traditional students. Who exactly are they? What motivates them? What outcomes do they want and need? And how can those needs be accommodated alongside existing needs?

Steps

Step 1: Identify and prioritize the most important user groups.

Your website is first and foremost a recruitment tool. The most important users of public-facing sites are prospective students. It's important that everybody involved understands this relative to other priorities.

To ensure there's consensus around the site's primary goal, it may be necessary to engage stakeholders in a collaborative prioritization exercise. Invite people to make their case to the project team — and each other — by way of a facilitated discussion early in the process. This heps establish alignment and set realistic expectations. This type of participatory exercise also helps later in the project when it's time to prioritize which content and features users need to find and use.

A more exhaustive list user groups and audiences might include:

- Prospective Students
- Current Students
- Prospective International Students
- Prospective Continuing Education Students
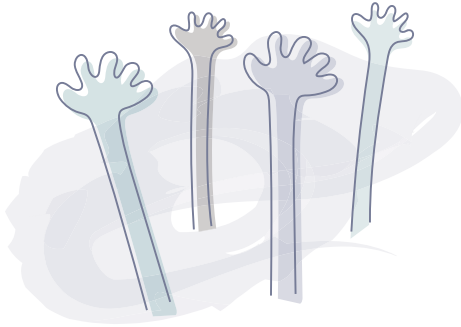
- Parents and Guidance Counsellors
- Alumni
- Researchers
- Employers
- Staff/Faculty
- Business and Industry Partners
- Community Members

What about personas?

Personas are a potential output of this process, but we recommend basing them on key user goals — also called jobs to be done (JTBD) — motivations, and behavioral triggers rather than demographics.

Demographic and psychographic information can add salience or depth to user personas, and in some cases reveal unique requirements, but the key is to understand why, how, and when people will use the product.

Personas are only useful if they're realistic and accurate. This will mean talking to users or people with first-hand familiarity with them. In some cases this might require more formal research, the beginning of which is described in the next step in this playbook.

What happens if you don't define user groups and needs early in the process?

When you don't dedicate a bit of time to defining target user groups and needs early in the process, some of them will show up and create challenges later on, when it's more expensive to accommodate them.

Step 2: Start to validate assumptions about user needs.

As you define and elaborate on your understanding of user groups and their needs, cultivate the habit of asking "why?" and "how do we know?" — or "how could we know?" This is the beginning of the user research process.

User research doesn't always need to be so rigorous that it significantly sets the project back. If the business case for user research is difficult to make, or budget and time are limited, do just enough research by identifying the riskiest assumptions you're making.

- Are we targeting the right users?
- Is our understanding of user goals, motivations, and triggers really accurate?
- Is what we're building really the best way to address those needs?

In some cases the answers to those questions will reveal the need for more research. They might even help you make a business case for it.

At the very least, you should plan to continue validating and enriching your assumptions throughout the project as more information becomes available (for example, by observing how users respond to designs and prototypes). Subsequent steps in this playbook will help you with those research activities.

Step 3: Use analytics to begin objectively informing content strategy.

User analytics refers to data gathered from how people currently use the site. Unfortunately, current usage patterns don't necessarily give a clear view of how successful new features and content will be. But when used wisely, analytics help validate assumptions about who uses your site or application, what they use it for, and how they use it.

- Where are our primary audiences coming from?
- What's currently the most popular content?
- Do people actually use features and content promoted on the homepage?

The most popular content on a post-secondary or higher-ed site is often among the most difficult to find. At the same time, promoted content often has lackluster usage. This indicates a mismatch between assumed value vs. real value to users.

Promoting the wrong content more aggressively will be counterproductive, as it tends to make the most valuable content even more difficult to find.

Also beware of "vanity metrics." Vanity metrics is a term popularized by Eric Ries in The Lean Startup, referring to metrics that are easy to measure and communicate but aren't really indicators of success. For example, increasing the number of page views can be a vanity metric if those page views aren't translating into conversions.

2/2 Add value by addressing deeper needs relevant to key tasks.

The primary job of a college or university website is to help prospective students select and apply for programs. But in order to do that job the website must perform a number of other jobs:

- Build an emotional connection with students, starting from the first impression through program selection and life as a student.

- Provide useful guidance and resources through the application and registration processes.
- Support the transition to post-secondary or higher education by providing information to help make the most of orientation and first-year experience.

Every stage of the user journey has potential constraints or value inhibitors. The following steps will help you identify and address those points of friction in order to deliver and realize value.

Steps

Step 1: Visualize user journeys and key tasks.

User journey mapping (also known as experience mapping) is one of the simplest and most valuable techniques to use early in a project. A visual map helps you hone in on specific opportunities or problems users face when trying to use your product. That knowledge helps prioritize elements to promote, add, remove, or streamline in the eventual design.

Like personas, journey maps are only useful if they're realistic and accurate. Often putting something on paper (or a whiteboard, or in a digital drawing tool) will help you ask better questions in the research process by revealing weak assumptions and gaps, potentially leading to more formal research. At the very least, look at user analytics to validate the paths you assume people are taking on your site to find and do what they need.

Journey maps can become very sophisticated and polished, but they don't necessarily need to be, especially if the purpose of the map is simply to produce insights and clarify needs. Here are some basic tips to get started:

- Sometimes it helps to start sketching on paper or a whiteboard, or with sticky notes, which helps move tasks around. After you've sketched enough to feel fairly confident in the broad shapes of the diagram you can switch to a digital format.
- Visualize progress in the journey from left to right. Define a trigger at the start of the journey and a goal at the end, then begin to fill in the intermediate events or steps they go through to get from start to finish.
- For more complex maps, group events into stages, with a value milestone at the end of each stage to make sure users are actually getting some value for their effort. This helps keep people motivated as they progress toward larger goals.
- Use the up-down axis to convey additional information, such as importance or difficulty of the tasks, peaks and valleys in the user's attitude or level of engagement, or separation of contexts using visual "swim lanes."

Once a version of the map is done, use it to facilitate team discussions about how, where, and why to add value or address constraints for users in light of their overall journey.

Step 2: Validate assumptions and generate insights by observing and listening to users.

When talking to potential users, remember at this early stage that you're still trying to get a clearer picture of their underlying motivations and needs. Directly asking users what they want can be misleading, since they often mistake what's appealing for what's valuable. They can't be expected to know what's possible or even know how to put their desires into words.

Try to elicit feedback about what users want to accomplish and how they want to feel, rather than how they want the interface to look or behave. For example, "I want to register for classes without going through all of these steps" is useful feedback, telling you it should be easier to register. But a comment like, "there should be a big registration popup on the homepage," is something that requires further probing. Why do they want that? What do they really need to accomplish? Would a popup really be the best way to accomplish that?

Focus groups aren't always the ideal venue for eliciting user experience feedback, but focus groups are a relatively easy and very effective way to listen to students. To foster honest and open feedback when facilitating focus groups:

- Start with a guide that outlines a few key questions or hypotheses.
- Avoid asking "leading questions" that suggest an expected response.
- Let the conversation flow where it leads, as long as it generates useful insights or patterns, but be ready to interrupt with follow-up questions or requests for specific examples to clarify what a participant is referring to.
- Exercise just enough control to prevent someone else from dominating or steering the conversation in an unproductive direction.

Facilitating and analyzing the outputs of focus groups is largely about balancing competing interests and demands. This is why more objective, quantitative research is essential.

Step 3: Make more objective design decisions through survey data.

Surveys play an important part in the user research process. Qualitative research often lacks real validity and power when it isn't supported by quantitative data, whether in the form of user analytics or surveys.

Focus groups and interviews are susceptible to invisible biases and unseen variables, such as slight differences in how the researchers posed questions, or how some focus group participants might have been influenced by others. Surveys provide a greater degree of confidence by limiting as many of those variables as possible.

But not everything is appropriate for a survey. If you want to ask a lot of open-ended questions with follow-ups about why people use a product, interviews

may be more appropriate. If you want to learn how people use a product, user analytics and usability testing may be more appropriate, because people often misremember how they behave when using something.

Examples of what to measure in a survey:

- Compare the importance vs satisfaction of key user needs.
- Rate the importance of different features and content.
- Compare priorities and perceptions between different groups of respondents.

General guidelines for mitigating biases as much as possible:

- Frame questions in a clear, meaningful, non-leading way.
- Elicit responses from a large, representative sample of the potential user population.

Finally, accept that survey results might force you to change your mind, but also accept that the results won't necessarily force other people to reach conclusions. Conclusions won't come until people start using the new site.

02 Usability

Focus user attention on completing key tasks.

After assessing user needs and priorities you should have a clearer sense of the types of content and features to focus on. This section will help you achieve that focus.

Everything else that gets added to the user experience detracts from people's ability to do what they really need to do. In post-secondary and higher education those additional items often take the form of copy and links that promote the administration more than they serve user needs.

Example: A common example of this type of content is the school's Academic or Strategic Plan. When prospective students land on the home page and one of the first things they see is "Academic Plan," it forces them to spend time and effort thinking about it instead of selecting and applying to a program. Some prospective students will click on it thinking it's a tool to help them plan their academic future. A minute or two later they're confused and feeling frustration toward your institution -- and maybe thinking about going back to another school's site where things they wanted were easier to find.

There are ways to make the Academic Plan discoverable without making it prominent, using visual cues or signifiers that are meaningful to the people seeking that information without requiring everyone else to think about it even notice it.

Steps

Step 1: Conduct usability reviews from the user's perspective.

Expert usability reviews or UX audits help identify known issues that might derail usability tests and inhibit formation of richer insights.

Some usability issues such as insufficient text contrast, size, and excess density are easily noticed by looking at individual pages, but those only represent a fraction of common usability issues. To conduct an effective usability review or UX audit it's critical to think about sequences of multiple steps or pages needed to complete key tasks.

✎ **Common usability issues to watch for:**

☑ Elements that draw attention away from key tasks.

☑ Steps or tasks that seem disconnected, confusing, or unnecessary.

☑ Labels that set unintended expectations or force users to guess.

☑ Language that's potentially unfamiliar or vague to a new user.

☑ Familiar elements or features used in unfamiliar ways.

☑ Information users are required to remember but could forget.

☑ Lack of fallback options or ability to recover from errors.

Step 2: Develop a clear content strategy and governance structure.

Content audits are a valuable early step in a project. Post-secondary and higher education websites have a lot of content owned and managed by many different contributors. Mobilizing people to make or approve changes is often an extended process. Early efforts to prioritize content to modify, merge, remove, or add will help accelerate that process.

Conduct the content audit with reference to the goals and needs defined from value-related steps in the project. Content with high value and relevance to key goals should be prioritized.

Some content with low value might need to be removed or merged. The latter actions help reduce some of the effort required to update the sitemap and navigation.

2/3 Use language familiar to the target audience.

M any college and university websites mimic their institution's structure composed of a dozen or so separate schools or faculties.

To someone inside the organization this structure probably makes a fair bit of sense. Schools or faculties are clustered according to related bodies of knowledge, shared resources, etc.

But a 17-year-old doesn't necessarily intuit or even recognize those logical associations. A high school student trying to select a school and program (and a career) is more likely to intuitively cluster programs and courses according to

other by themes or areas of interest — which may or may not be represented by institutional structure.

Examples of language we've seen confuse users on college and university sites:

- "Office of the Registrar." Students need to be able to find where to register, pay, add/change courses, etc. Eventually they might learn to associate those activities with the Office of the Registrar, but few new or prospective students would think to look under that heading. Make sure people can find pages based on how they describe their own goals, not just how the institution is structured.

- "Student Engagement." Many schools have special projects, roles, or offices set up specifically to improve or support things like student engagement, alumni support, community outreach, etc. Engagement and outreach are essential, but users might not look for or identify with those abstract concepts. Position those types of services in the way that users would describe their own needs: like "life at college" and "success after graduation."

- "Faculty of Arts & Science." Many department and program names can be initially misleading to prospective students. While these names usually can't be changed on the site (and probably shouldn't, even if they could), it becomes more important to help users notice and recover from those mistakes. Recommendations for this include keeping navigation systems consistent, complementing primary navigation with breadcrumbs, and employing minimalist design using clear language that enables key information to stand out.

Steps

Step 1: Test your site's navigation structure and labels with users.

Label names and menu structure almost always evolve through stakeholder input and usability testing. It's better to make these changes early — before they affect design and development — based on objective findings to help resolve disagreements.

There are a number of ways to test labels and menus:

Card sorting

- Card sorting is a low-tech, participatory approach to developing navigation and menu structure. Participants are provided a set of index cards or sticky notes representing things they need to find or do on the site. They're then asked to organize the cards into categories and sub-categories, which eventually form a tree-like taxonomy or navigation structure.

- Category names can either be predefined or left blank for participants to come up with names themselves. The latter approach (known as "open" card sorting) can reduce some of the researcher's bias and generate new ideas for category names.

- ResIM often uses a hybrid approach to facilitate card sorting sessions, in which participants are given opportunities to come up with category names, but the facilitator is ready to propose names in order to assess the response from participants.

Tree testing

- Tree testing uses a fully baked (but low-tech) sitemap or navigation structure and asks participants to try to find a specific feature or piece of information.

- Tree testing can either be done digitally (using an interactive menu tree) or with physical cards (known as "reverse card sorting") by presenting participants first the highest level categories and asking where they would start looking. The facilitator reveals additional cards based on categories picked as the test progresses. The digital approach works best for efficiently building a set of objective data. The physical-card approach is useful for turning the test into a kind of interview for gathering additional feedback.

3/3 Look for all possible usability challenges and needs.

In addition to basic usability issues addressed in previous sections, there will always be opportunities to remove friction from the user experience. This section deals with two types of usability improvements:

- Help people avoid and recover from mistakes.
- Help people save time.

Ideally these challenges and needs will be identified early, during the research process, before costly changes to the site structure or design are required. But many challenges won't be revealed until you get opportunities to observe users interacting with the site.

The best way to identify and address the most critical usability challenges is through multiple rounds of usability testing with real users.

Example: College and university sites tend to be very large, with multiple subdomains, each with their own navigation systems (despite even the best efforts to avoid that).

During usability tests we have observed users get lost trying to navigate between different subdomains. In some cases they aren't even aware that the site changed and they're in the wrong place. When users land on a new site or subdomain they are focused on completing their task and don't have the cognitive capacity to make note of contextual changes.

Steps

Step 1: Help people avoid and recover from mistakes.

The most common mistake people make on large websites is navigating to the wrong section or page. Usability testing shows how easily people can end up on the wrong page or even the wrong site without noticing.

Keep navigation as consistent as possible.

- Sites that introduce a different primary navigation system for every section become difficult to use. In some cases the uniqueness of a section's audience combined with the amount and variety of information warrants its own navigation system, but avoid changing or removing main menu options more than once in a single user visit or session.

Make sure page titles are clear and meaningful.

- The simplest way to help users recover from mistakes is to make sure page titles are relevant, distinct, and obvious. Occasionally page or section content can get edited over time to where it no longer matches the heading and navigation structure, causing confusion and doubt.

Provide breadcrumbs to help users trace their steps.

- Breadcrumb navigation is usually presented as a small row of parent page titles in the header that shows where the user currently is in the navigation tree. For example, users looking for undergraduate admissions information could mistakenly end up in the graduate studies section, on a low-level page with a generic title like "Admissions." Breadcrumbs can help the user recognize their mistake and quickly navigate back to the most relevant higher-level page.

Add "feedforward" to actions most likely to lead users astray.

- If your site uses multiple subdomains and navigation systems, use "feedforward" or visual hints that subtly prepare users that they're entering a new area or site. A common example is using a special icon for external links that will take users to other sites.

Step 2: Help users save time.

College and university sites cater to a wide range of user abilities. While it's important to help new and prospective students manage the basics, it's also valuable to give more experienced users shortcuts.

Improve search.

- Poor site search results is often the place to start making improvements. Experienced users of many sites rely on external Google searches after being frustrated by poor internal search results.

Improve form usability.

- Returning and upper year students often know exactly where to find a form or piece of information but dread going there after having a bad experience.
- Common problems with forms include too many required fields, unclear labels and instructions, and overly picky data validation.

Streamline logins and portal usability.

- Although public-facing sites are often treated as separate from student portals, from a user's perspective they are all part of the same experience — certainly the same student experience. Negative experiences anywhere can carry over, including experiences dealing directly with school staff.

Step 3: Test your site.

It's essential to conduct usability testing on working products to see where people can and will go wrong. There are several techniques for conducting usability tests but in general we use two:

Moderated Usability Tests

- Moderated usability tests are usually done in person, sometimes in a lab with multiple observers and recording equipment, but often in a fairly casual environment. Moderated usability tests can be conversational, with the researcher or facilitator able to ask the user why they did something a particular way or whether they notice certain things.

Remote Unmoderated Usability Tests

- Remote unmoderated usability tests usually use an online tool such as UserTesting.com. Remote unmoderated testing is usually more efficient and objective, but doesn't allow the researcher to ask questions that might come up unexpectedly.

✏️ **Key tasks to test for:**

☑ Elements that draw attention away from key tasks.

☑ Find a list of programs or courses.

☑ Find a specific list of programs or courses (e.g. health-related programs, BSc degree programs, part-time programs).

☑ Find admission requirements for a specific program.

☑ Find a page where you can apply.

☑ Find tuition and other costs for a specific program.

☑ Find the deadline or due date for paying tuition.

☑ Find a list of scholarships and bursaries.

☑ Find information for international students.

☑ Find a form to fill out to book a campus visit.

☑ Find a campus map.

✎ Secondary tasks to test for:

☑ Find information about becoming or requesting a peer tutor.

☑ Find out how to replace your student card.

☑ Find residence and/or off-campus housing listings.

☑ Find the cost of parking and/or bus pass.

☑ Find out how to join clubs or athletic teams.

03 Accessibility

1/2 Enable accessibility on users' preferred platforms and devices.

Y ou aren't in control of how, and through which devices, your audience chooses to interact with your website. In today's computing environment it's up to web property owners to meet the device and platform preferences of their customers with a valuable experience.

Steps

Step 1: Consider mobile and tablet scenarios in your research.

Using analytics data is imperative when conducting UX research. Building objective recommendations without analytics is risky and fails to address important behavioural patterns. Extend your review of analytics to include device specific (mobile, tablet, desktop/laptop) scenarios as you prioritize tasks and content.

Similarly, it's important to validate and test the device-specific versions of your site on a host of devices.

Slice your analytics data

- Tools like Google Analytics allow you to view device-specific behaviour data to determine what mobile users are doing with the content and features available.

Make your prototypes responsive

- Building prototypes in code may seem like additional up-front effort. We've found this approach valuable in that it allows us to create more accurate responses and interactions while enabling us to apply responsive design much earlier in the process. A responsive prototype also allows for usability testing on an expanded set of devices.

Step 2: Test Your Prototype on Different Platforms

Do you know what the program discovery process will be like on Windows 8 running the latest version of Firefox? Or how program detail pages appear in Google Chrome on an Android tablet?

These questions can be answered as an evolving prototype is tested on different devices, operating systems, and browsers.

Be sure to use analytics data to identify the most popular combinations and start there.

2/2 Accommodate diverse user abilities.

Because of the role colleges and universities play in society it's important that their websites and online services be accessible to everyone. This extends from the importance of the Web in general and the need for it to provide equal access and equal opportunity to everyone.

Steps

Step 1: Experience your site through assistive technology.

Good user experience starts with empathy. Going through the motions of learning and meeting minimum accessibility standards is necessary but won't be sufficient for making your site accomplish its goals as effectively as possible.

Visually impaired users rely on screen readers to dictate and describe web content. It's important to be familiar with the way visually impaired users experience your site based on how screen readers see content and structural elements such as headings, links, images, etc.

On Windows computers there are screen readers available such as JAWS, Window Eyes, and NVDA. Mac computers and iOS devices have built-in screen reader called VoiceOver. There are also browser extensions such as ChromeVox.

Trying one or some of these assistive technologies will help you appreciate the value of accessibility improvements.

Step 2: Promote and audit compliance accessibility guidelines.

Someone on your team should have accountability for knowing and promoting Web Content Accessibility Guidelines (WCAG) within the organization, as most public sector and regulated private sector institutions are required to comply with at least some level of these guidelines.

Some WCAG recommendations should be incorporated during design and development. For example, text contrast and ability to increase text size in the browser without "breaking" the page and design and development responsibilities.

Content authors, editors, and administrators also need to be aware of and held accountable to WCAG recommendations. These recommendations include:

- Ensuring that all information is in HTML (rather than images, PDFs, or Flash)
- Using heading styles appropriately (to structure the page rather than add emphasis to paragraphs)
- Giving images meaningful alt text descriptions (for example, "Photo of business students presenting a business case")

Periodic accessibility audits are beneficial, since perfect compliance is challenging and costly to enforce with large numbers of content contributors. Accessibility audits can be done as part of a broader content audit, with the assistance of browser extensions and other tools to help flag problems.

04 Appeal

1/3 Create instant and consistent visual appeal.

M uch of our early-stage work on improving value, usability, and accessibility is done with low-fidelity wireframes and prototypes. Only after those elements are worked out do we start to finalize and polish the visual design.

Visual design is largely an extension of value and usability principles. Great visual design is part talent, part craft, and part science.

While the scope of this playbook doesn't go deep into visual design techniques, it covers some high-level strategies for making your site or mobile app instantly and consistently appealing.

- Balance familiarity and novelty.
- Exercise minimalism.

'The Demographics of Design Savvy'

Digital lifestyles and decades of cool new technology products and services have bred a generation of design-savvy students. Steve Jobs and Mark Zuckerberg aren't just household names, they're heroes to a lot of students.

Websites and mobile apps are part utility and part fashion. A lot of users care as deeply about web design as they do about cars, clothes, and gadgets. They might not be professional designers but they have strong, often well-informed opinions.

Web and mobile experiences make up a big part of students' lives. Students want to take pride in anything that represents their school. Make it easy for them to be proud.

Steps

Step 1: Balance familiarity and novelty.

People are visually attracted to things that are mostly familiar but have some unique characteristics.

Familiarity and consistency with de facto standards helps prospective students make sense of what they're seeing and quickly find what they're looking for. In other words, your site needs to look like a post-secondary or higher-ed site. But your site also needs identify with the brand and highlight your school's unique qualities.

Guidelines for balancing familiarity and novelty:

- Test your designs early and listen to users. Most current students would have articulated reasons for selecting your school over others. What initially attracted them to your school? Why did they pick yours over others? What do they brag about to friends at other schools?

- Consider multiple solutions to design questions before settling on one. This tends to generate a range of options with different degrees of familiarity and novelty. Pick the best solution to solve the specific problem from a user's perspective rather than trying to fabricate familiarity or novelty for its own sake.

Step 2: Exercise minimalism.

As you progress from research and information architecture through design and prototyping there's a common temptation to *add more stuff.* This is especially true in post-secondary and higher education environments with many stakeholders.

Minimalist design helps keep the focus on key tasks. It's important to briefly revisit principles of Value, Usability, and Accessibility as you move forward through the process.

2/3 Engage users through feedforward, interaction, and feedback.

In technical design terms, interaction is about affordances and signifiers. An affordance is something a user can do, such as submit an application. A signifier is an element that calls attention to what a particular affordance is and how to take advantage of it.

Feedback is a very important concept in interaction design. Feedback is an outcome of an interaction, ideally that meets or exceeds a user's expectations. For example, if a user sees what looks like a button, they'll expect that when they press it something will happen: it should look different when pressed and it should make some change.

Feedforward is a similar concept, but reversed. Feedforward actively prompts or nudges users to act. This is often accomplished through subtle animations.

Steps

Step 1: Continue to use analytics to validate and refine the quality of interactions.

Periodically review key features and content on the site, then compare how it looks with how it actually performs.

It isn't uncommon to see low click rates on features that appear to be attention-getters. Users have a limited amount of attention to spend at any given time and place, and on college in university sites that attention tends to be very task-focused. Accept that a school site is not like Facebook, it isn't someplace people routinely go to poke around aimlessly. They're there for a reason, and anything that doesn't immediately appear to support that reason gets unconsciously pushed into the background.

Example: One of the most common pitfalls on post-secondary and higher education sites is use of promotional rotating banners to promote everything from flu clinics and poster sales to the school's long-term Academic Plan.

Research shows that users unconsciously block content and features that look like advertising, known as "banner blindness." This means that prime page space is taken up by something that actually detracts from the overall usability and visual appeal of the site.

3/3 Create a memorable sense of accomplishment.
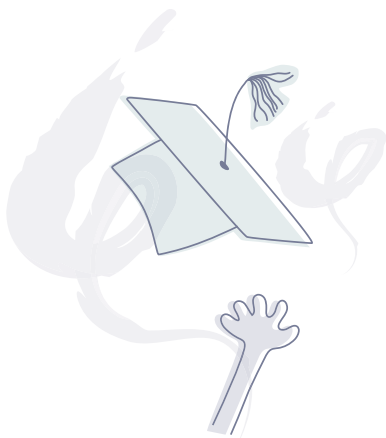
T he last and perhaps most important principle brings us full circle, back to the first principles of addressing user needs.

Education creates accomplishments and abilities and relationships that students will value for years to come. The student digital experience plays a small but important role in the broader student experience. The digital experience is there to facilitate connections.

Even when the task at hand is simply to help a student find the nearest coffee shop on campus, the website is there to serve their needs and help them accomplish things, no matter how large or small.