Teaching with ePortfolios

Overview

Building ePortfolios into your courses means providing students with valuable opportunities to engage in the most effective long-term learning activities. ePortfolios teach students to self-assess, to monitor and evaluate their learning progress, to think critically and actively about their learning processes, to take ownership of their work, and to practice planning, implementation, and revision--all of which enhance meaningful, long-term learning. ePortfolios are student-curated online collections of their own work tied together by self-reflective writing and purposeful design. They can also be incredibly flexible and useful tools for you and for students in a single unit, course, or program. In fact, recent research shows that students in courses that require ePortfolios report being more engaged than those in the same courses *without* ePortfolios. Direct descendants of paper portfolios, which typically include a reflective cover letter and a few selected projects that may or may not be related--geared generally for the teacher's and possibly one or two peers' evaluative eyes only--ePortfolios offer students a chance to create a cohesive argument out of a body of their work.

While we've used paper portfolios in higher ed for the last several decades and may be tempted to think of ePortfolios as simply online versions of those, ePortfolios are different in several important ways:

- ePortfolios are (potentially) public and searchable.
- Because of their public nature, ePortfolios provide a concrete way to help students consider and write for specific, even multiple, audiences.
- ePortfolios help students develop digital composition skills--in particular, research shows that the combination of thinking about design *and* textual content provides higher-impact learning experiences than simply putting words on paper.
- ePortfolios foster not just writing and subject-based expertise, but broader intellectual and cultural development.
- ePortfolios facilitate active learning that crosses the boundaries of individual courses, fields of study, or even the line between education and extra-curricular development and commitments.

You might worry that using ePortfolios could increase your workload or require complex technological training, but they don't have to. In this resource you will find strategies for their use at the unit-level, course- or program-level, developing writer level, and further readings if you want to learn more.

Table of Contents

General Considerations

Extensive technical/digital expertise is not required to create an effective ePortfolio.
We live in an age that offers an abundance of free online tools that are user-friendly, easy to learn, and potentially even easy for more more technologically advanced students to personalize. Most tools, such as WordPress (robustly supported by U of M Instructional Technology personnel), Wix, or Seelio, offer both standard templates with editing/drafting tools that mirror those of email programs or Word for the most entry-level tech users *as well as* HTML capability for those who want to try their hand at coding. You need not master all--or even any--of the available tools in order to incorporate ePortfolios; you simply need to be familiar enough with them to be able to provide students clear pathways to support, both online and at UM.

ePortfolios should be treated as cohesive compositions.
Rather than acting merely as repositories for a collection of unrelated papers or projects, effective ePortfolios constitute complete compositions in themselves. Making ePortfolios cohesive compositions requires students to find throughlines (consistent relationships) among their projects, processes, and/or skills, values, and competencies, and to create a narrative that ties all their selected work together.

ePortfolios require three primary tasks: selection, evidence-based reflection, and revision.
In order for students to invest in the concept of an ePortfolio as a carefully constructed and self-determined representation of their work, they need room to make choices about what to include and/or how to frame what they've included. In order for students to engage in deep, long-term learning, they need to analyze and point to aspects of their work that support the larger claims or narratives their portfolios make and articulate why and how those artifacts are significant, just as they would do for any other analytical project. In order for students to develop the most effective, cohesive argument possible, they need time to draft, reflect on, and revise their ePortfolio, particularly the navigation and reflective writing that frame the artifacts.

ePortfolios are more than simply alphabetic text on a screen and should take advantage of the affordances of digital technology.
One of the most beneficial aspects of ePortfolios (as opposed to paper portfolios) is giving students the space to consider how design and online interactivity can shape the argument their work makes.

Research shows that dynamic combination of thinking about how design *and* textual content influence one another, and participating in the problem-solving that working in new media inspires, provides higher-impact learning experiences than simply thinking of ePortfolios as a static place to transfer, wholesale, words from a document to a more public forum. You should encourage your students to think about how they prefer to read online, and what the conventions of online writing are, so that they can make smart use of hyperlinks, video, image, and audio integration, embedding presentations, etc.

ePortfolios can create deep learning and enable knowledge transfer.
ePortfolios require focusing both on short-term, day-to-day, in-the-moment tasks as well as on making connections among pieces of work across time to form an integrated narrative (i.e. an argument about who the creators are as a student, artist, scholar, pre-professional, etc.). That is, they require the integration of different aspects of learning--both cognitive (content-, skill-, or competency-based) and non-cognitive (aesthetically-, emotionally-, or identity-based). Because of this, ePortfolios are an excellent way to help students learn deeply and in a way that teaches them to transfer their knowledge from one context to another--from one concept to another within a unit or class, from one course to another, from one discipline to another, from school to their personal lives, from undergraduate to graduate studies, from school to the professional world, etc.

ePortfolios build in opportunities for short-term and long-term learning, facilitating knowledge transfer.
This kind of integration cultivates two kinds of learning for students: immediate/short-term learning, and long-term learning. (Experts refer to these kinds of learning as developing the "networked self," and the "symphonic self.")

> ***Immediate/short-term learning*** is flexible, encourages boundary crossing, responds in the moment, and makes connections among current ideas. This kind of learning arises in day-to-day activities and reflection, and it doesn't aim for mastery, but rather rather for an ongoing sense of revision and updating.

> ***Long-term learning*** demonstrates sustained coherence, pulling together ideas and skills with an internal integrity and continuity, identifying enduring commitments and values, the parts adding up to the whole. This kind of learning arises out of in-depth intellectual engagement and sustained creativity.

While the most effective learning (deep learning that facilitates knowledge/skills transfer) comes from marrying short-term and long-term learning, each type of has value in a student's development. Depending on how much time you have to dedicate to ePortfolios, you can encourage some development of each type of learning, and generally the more time you have (i.e. if you're working with ePortfolios in a program or department), the more opportunity to move toward your students toward long-term learning and knowledge transfer.

ePortfolios should be carefully integrated into the project, course, or program.
In order to cultivate both immediate and long-term learning, the road to ePortfolios needs to include time for activities built into both day-to-day (i.e. ongoing reflections and quick connections among ideas, skills, etc.) and longer-term processes (reflecting back later on earlier, cumulative reflections, having a chance to repeat activities, to revise, etc.). An ePortfolio is most useful when it is completely woven into the fabric of the assignment/unit, course, or program/department. From the first introduction of the ePortfolio prompt to the final submission of the ePortfolio, the ideal way to make the most of the learning students can do is by supporting their planning, reflective, and revision practices along the way.

The Basic Elements of Assigning ePortfolios

When students or instructors are new to ePortfolios, they tend to have a hard time imagining what they "look like," and thus worry about things like, "How will I even assign something when I'm unsure what it should look like?" or "How will my students wrap their minds around what they're supposed to do?" This section breaks ePortfolios into their most basic elements so that you can see how those pieces fit together.

The Prompt: The first step in <u>**ANY**</u> situation is to introduce the ePortfolio with a prompt that clearly lays out the guidelines and expectations, including a list of required artifacts. You should for sure require:
Some kind of reflective introduction to the ePortfolio
A certain number of artifacts of their process
Reflective material around their chosen artifacts
Some kind of interactivity (hyperlinks, quizzes, etc.)
Some kind of meaningful multimedia (images, data visualization, embedded videos/audio, etc.)
Clear navigation

Remember that in some way you should provide your students with the opportunity to make decisions about what they include. For instance, any list like the one above could easily invite choice--maybe they have to include three artifacts, but you let them choose which three, for instance. Or maybe their artifacts need to be of a certain nature, and you let them choose which ones best fit those characteristics. For example, you can require that they include at least one image per page, but let them decide what images are best suited based on guidelines you provide.

You should also determine early on what ultimate level of publicity the finished ePortfolios will have. Will they be open to the general public? Only to you? Only to class members, program cohorts, etc? Ideally students should have some choice in this matter, but do remember that the more public an ePortfolio will be, the more "real" the choices the students make in order to engage with their desired audiences are likely to be.

Artifacts: Artifacts are the main feature of the ePortfolio--the objects students choose to display in their ePortfolios, such as an essay or a slide show or lab results--and they are framed and contextualized by the reflective writing. Just as in a museum, where each artifact (say, a painting) is accompanied by

informational and often interpretive (what museums call "contextual" and "didactic") text, the artifacts of an ePortfolio are what the students select (or "curate") to tell their story.

Reflective Writing: Reflective writing is the contextual, analytical, and affective frame the students build to support and highlight their collection of artifacts, creating a cohesive narrative that ties them all together. To continue with the museum metaphor, the reflective writing is akin to the informational and didactic text you find in museums. Reflective writing most traditionally takes the form of:

Introduction to the whole ePortfolio: This is the section where the student addresses their audience and makes a case for the argument their portfolio makes about them as a student, writer, citizen, artist, future professional, etc. Think of the large posters or fliers that introduce a collection at a museum (the questions they ask and why, the themes they address and what they reveal, the period it covers and to what end, etc.), and you've got some idea of what a reflective introduction can--and should--do.The thing a reflective introduction should also do, which goes a step further than a museum collection's narrative, is to reflectively analyze the work. The key here is that the reflective introduction is argument-driven, and it uses evidence from the student's own work to support the claims it makes.

Introductions to individual sections/artifacts: Some students find the best way to incorporate reflective material throughout the rest of the eportfolio is to create a brief introduction to each section, each page, or each artifact (or some combination of these)--depending on the breadth, depth, and organizational scheme of the ePortfolio. In a museum, such introductions would be akin to the small plaques you find on the walls or podiums near individual artifacts or sections of an exhibit. Again, these are a place to provide context, but also reflective analysis, navigation, even dialogue with readers.

Interactive navigation: One of the key things that distinguishes ePortfolios in form and purpose from paper portfolios is their ability to reach public audiences and to allow students flexibility in the navigation they create for those audiences. Students can provide pathways that guide their readers around their eportfolios by way of:

Main menus: Most online platforms have built in abilities to create main menus similar to what you'll find on any basic website (main sections listed across the top, for instance, with drop-down pages underneath; or side menus).

Images: Many platforms allow students to turn images into active buttons/gateways that lead elsewhere, such as to sections or artifacts.

Hyperlinks: Most online platforms also include the capability to create hyperlinks from any place on one page (images, as above, or text) to another place on the same page, from one page to another within the ePorftolio, or from any place on a page in the ePortfolio to an outside webpage.

Visual design/Multimodal Writing: Multimodal writing is writing that makes use of more than alphabetic (or linguistic) text. The way people in composition are talking about multimodal writing these days is by acknowledging five different modes (ways of communicating) that a text can have: linguistic (alphabetic text), visual (color, layout, style, etc.), spatial (arrangement of elements, organization, proximity between objects), audio (music, sound effects, ambient noises, silence, tone of speaking voice, etc.), and gestural (facial expressions, hand gestures, body language, physical interactions between people). The need to make purposeful choices about color, layout, images, incorporation of video and audio, etc, helps students develop digital composition skills-- research shows that the combination of thinking about design *and* textual content provides higher-impact learning experiences than simply putting words on paper, because they not only have to think in concrete, information-based ways, but they have to synthesize information and make connections across different modes in order to conceptualize their work and apply their knowledge.

For a printable handout with the basic elements of an ePortlfolio (minus the prompt), directed to students, we encourage you to print **Supplement 1: "The Basic Elements of an ePortfolio"** and hand it out along with whatever prompt you write.

For a more detailed discussion of teaching and modeling multimodal analysis, see the Sweetland Teaching Resource, **"Supporting Multimodal Literacy."**

Strategies for the Classroom

Below, we offer several types of assignments that fit into the three stages you need to include in any ePortfolio project: pre-writing/planning, writing/designing, and revising/publishing. Below the list of assignments, you'll find a table of the assignments divided into these three categories. Following the table, we've provided some possible sequences using these assignments depending on the ePortfolio strategy you're using: some for single-assignment-based ePortfolios, some for unit- or course-based ePortfolios, and some for program- or department-based ePortfolios.

We offer you this assignment list and table not as a strict sequence that must be followed precisely, but as suggestions to help you to implement the stages of ePortfolios in your courses.You should feel free to mix and match these assignments as you see fit, though we encourage you to *always* include some pre-writing/planning assignments, writing/designing assignments, and revising/publishing assignments in any sequence.

In this section you'll find three strategies for incorporating ePortfolios at various levels, including suggested sequences for different types of use:

1. [Using ePortfolios at the Assignment or Unit Level](), which can be a useful way to start if you're new to ePortfolios;

2. [Using ePortfolios at the course level](#), which can be useful both for writing-intensive and content-based courses;
3. [Using ePortfolios at the program or department level](#), which is useful for content-based learning that invites students to consolidate content knowledge by writing about it AND creates opportunities for knowledge transfer.

Stage 1: Pre-Writing/Planning Assignments

Each of these assignments provides a full description of how and when you might consider using them, and each strategy below includes a chart with suggested assignment sequences for that strategy.

Assignment 1: ePortfolio Pre-Write. When you first assign the ePortfolio, it's a good idea to set aside time for students to read the prompt, think carefully about what the ePortfolio requires, and begin to make concrete plans for how to approach it. Consider asking students, alone or in pairs/groups, to examine the project prompt and write a reflection that does some or all of the following:

- Paraphrases what the big-picture purpose of the ePortfolio is
- Identifies (in their own words) the individual pieces or tasks that they will need to do, including technical knowledge they will need, to successfully complete the ePortfolio
- Identifies areas of the prompt that need some clarification, if any
- Identifies what their role as the author/architect/etc. of this ePortfolio is in relationship to the audience(s) they're writing for (That is, who do they want to present themselves to be? Are they students? Artists? Scholars? Pre-professionals? Something else? Who are they speaking to? For what purpose?)
- Thinks through the purpose of the ePortfolio—what is its immediate role in the unit, course, or department/program, and also how might it help them in the future
- Lists or sketches out what they already know/know how to do
- Lays out a plan of action (this may be "broad strokes," but the more specific it can be, the better—even with self-imposed deadlines for "deliverables," etc.)

Assignment 2: Analyze Audience As with any effective writing, ePortfolios are tailored for specific audiences. Before students can construct their ePortfolios, they need to understand who their audience is, why they would be reading their ePortfolios, and what they expect from those ePortfolios. It's a good idea to have students write up an audience profile that--at least preliminarily--sketches out these details so that they can angle their selections, design, and tone to that readership.

Assignment 3: Select or Learn Platforms If you're not requiring every student to use the same platform (i.e. Wordpress, Wix, etc.) to build their ePortfolios, it's a good idea to have them decide fairly early in the process which they want to use and get familiar with how it works. If you are requiring them all to use the same platform, it's helpful to provide an orientation to it fairly early in the process. Because new platforms constantly arise, and the affordances of existing platforms often change, if you're new to this kind of technology we suggest that you check out the U-M's library resource on **choosing ePortfolio platforms** (https://sites.google.com/a/umich.edu/mportfoliosupport/tools).

Assignment 4 and/or 5: Reverse-Engineer Models (whole class or small group) This is a useful way for you to help students look closely at examples of successful ePortfolios to identify the way their writers used specific elements (artifacts, reflection, introduction, design, navigation, etc.) and how those elements work together to make a cohesive argument. It works best if you can have the students read through the sample ePortfolios ahead of time and ask them to look specifically for elements you want them to notice (that way you don't have to use valuable class time for silent reading). In particular, they should see examples of effective overall cohesion and clarity of argument, reflection, navigation, and use of visuals. You can find examples of successful first-year ePortfolios and minor in writing ePortfolios on our website (http://lsa.umich.edu/sweetland/undergraduates/minor-in-writing/gateway.html), or you can provide students examples of your own or a colleague's past students' work. Reverse-engineering models is most effective if you can:

- Set aside some time to analyze models as a class, and then
- Have them complete a reverse-engineering assignment on their own. You may not even need to grade this assignment after you've worked together in class--just the act of analyzing models on their own will give them ideas, and then they can ask questions about what they don't quite understand after they try it on their own. For an assignment you can hand out to your students, see **Supplement 2: "Reverse-Engineering Model ePortfolios."**

Whole class: When you're all together, you can lead a discussion in which students discuss what they found and analyze the efficacy of each element of the portfolio. Remember that you're trying to articulate not only *what* particular elements are effective, but *how and why* they work together to build the larger picture.

Small groups: If you choose to have students work in small group discussions, it's a good idea to give them specific questions to answer as a group, and then ask each group to report back, leaving time to focus on issues/questions/observations they bring up in more detail.

Assignment 6: Collect Artifacts It's a good idea to ask students to come up with some purposeful way of identifying and keeping the artifacts they may want to use (such as assignment pre-writes, drafts, reflections, peer reviews, etc.--whatever you're requiring for the ePortfolio) in a safe, easily accessible virtual space. For example, some students like to keep artifacts in a file on their computer or a portable drive (or, even better, in the cloud). U of M provides each student with free M+Box space, which is one option, and there are storage possibilities in Canvas and CTools as well. We recommend that you ask students to update their artifact files regularly, whether you give them time to do so in class or ask them to do it on their own. If you want to keep track of their collections, you can easily ask students to add you as a collaborator, editor, or viewer in the files. Whether or not you actually check them (depending on your time and inclination), adding you to the files may boost their sense of accountability. Bonus: these artifact files are also a good place for students to collect images, links, etc. that they may want to use in their ePortfolios.

Assignment 7: Draft In-Process Artifact Reflections These are post-draft reflections written to an author's peers or instructor to articulate where the draft of an individual project (artifact) is in-process, how it got there, and what help is needed. They can be a terrific way to encourage students' metacognition, as well as getting them to think explicitly about their processes, their audiences, and how they can frame their work for those audiences. For handouts you can provide to your students to help them create their reflections, see **Supplement 3: "In-Process Artifact Reflections,"** and **Supplement 4: "What is Reflection in an ePortfolio?"**

Expert Tip: If they've created in-process artifact reflections for their drafts, when it's time to create the reflective material framing their artifacts, they already have material to work with, reflect back on, and update.

Assignment 8: Find Connections/Articulate Argument Since an effective ePortfolio is one that creates and supports one cohesive argument or line-of inquiry, it can be extremely beneficial to help students think explicitly about what commonalities the artifacts they'll include in their ePortfolio share *before* they start building their ePortfolios. An ideal time to do this is often after they've gathered potential artifacts and written in-process reflections on them. Ask students to read through their gathered artifacts all at once--perhaps even asking them to create an annotated bibliography of their own projects--and identify no more than two patterns they notice occurring fairly consistently among them. These patterns may be something about their processes, about their interests, about their subject matter, about their commitments, about their tone, etc.--anything that reveals some kind of consistency they can reflect on and build an argument around is fair game. (Alternatively, you may have in mind something you want them specifically related to your course or program to think about, such as an issue important to the class or program.) Once they have established a pattern or two, ask them to shape their observations into some kind of claim about what their work demonstrates about them as a student, a scholar, a writer, or some other identity relevant to your course, program, or department. This can serve as their working argument for their eportfolio and can help them plan their design and reflective framing material.

Assignment 9: Pitch ePortfolio Plan Before students begin designing and drafting their eportfolios, they should have a clear idea of what they're trying to accomplish, and how they plan to do that. If they can articulate that plan to someone else in an understandable way, they are better positioned to carry out a draft. After students have had some time to collect artifacts, ask them to talk about their vision for the ePortfolio with some of their peers (either in pairs or in small groups). For a handout you can provide to help students plan, see the **Supplement 5: "Conceptualizing Your ePort for Your Peers: Questions to Talk Through."**

Stage 2: Writing/Designing
Each of these assignments provides a full description of how and when you might consider using them, and each strategy below includes a chart with suggested assignment sequences for that strategy.

Assignment 10: Build Pages It's a good idea to have students build and populate pages in their ePortfolios as soon as possible, so that they discover early in the process what questions they might have about the platform they're using, the ePortfolio requirements, design choices, etc. Also, if you ask them to populate pages (i.e. add material to them, such as rough drafts or pre-writing) early, you build in time and space for reflection and revision, which couldn't happen effectively if they're doing all their designing at the end.

Assignment 11: Create Navigation Asking students to create their navigation as a discrete assignment provides them with the opportunity to think explicitly about how they want readers to experience their eportfolio. One way to do this is to require an ePortfolio map (perhaps using mind-maps, storyboarding, listing pages and sub-pages--whatever approach is most useful for students to visualize their ePortfolio) with a written justification for their organizational choices. If we're requiring all students to use the same platform, we have found it effective to have students create several of their pages at once in class, so that we can show them how to generate menus and organize their navigation. This tends to get students immediately invested in the ePortfolio design.

Assignment 12: Draft Reflective Introductions Any effective ePortfolio has some sort of reflective, evidence-based introduction that orients readers to the argument, purpose, and structure of the ePortfolio. Asking students to draft their reflective introductions early enough to receive peer feedback and/or your feedback and revise is the best way to ensure thoughtful, successful introductions. Early drafts of these introductions can also help students identify problems with their eportfolios' organization/navigation, holes in their overall argument that they want to address, or information they want to be sure to add to their other reflective material. For a handout you can provide to your students to help them pre-write, see **Supplement 6: "Reflective Introduction Essay Pre-Writing,"** and for a handout you can provide to them about effective reflection throughout, see **Supplement 4: "What is Reflection in an ePortfolio?"**

Assignment 13: Draft Other Reflective Materials The length and scope of the ePortfolios you assign will determine, to some extent, the frequency and scope of reflective material in the ePortfolio besides the introduction. For example, some people choose to include a reflective paragraph with each artifact, some choose to include slightly longer reflections with each section (but not with each artifact), and some choose to do a combination of both--say, a reflective introduction to each section that analytically introduces the pieces included there, with brief contextual information ahead of each piece. Asking students to focus on their reflective materials at this stage will help them make conscious decisions about how to guide their readers through their work. As noted in Assignment 5, "In Process Artifact Reflections," having drafts of these already completed as they work can provide students with a good head-start on this material.

Assignment 14: Integrate Visuals & Hyperlinks Some students need a little help thinking about how an online ePortfolio differs from a collection of paper-bound projects. Specifically, they need help making decisions about what kinds of visual elements to include (images, color palettes, paragraph length, etc.) and how to make the best use of hyperlinks--both to external pages and to pages within their ePortfolio.

What's important is to remind students to think about how they experience reading online. How long do they want the paragraphs online to be when they're reading an article? Where do they appreciate hyperlinks? What kinds of images do they want to see? How do their own preferences for reading online intersect with those of their intended audience's likely preferences? Having students gather multimodal evidence or turn textual drafts into multimodal/online versions after their initial draft is finished is one way to help them think about what changes they want to make when the media and audience considerations shift from private, paper-based to public, online forums. This will help them make the most deliberate, purposeful choices. For a handout you can provide your students about how and why to caption images, see **Supplement 7: "Image Captioning."**

Assignment 15: Present Work In-Progress Presenting their in-progress work far before they have a complete ePortfolio is an excellent way to invite students to step back and think carefully about what they're trying to achieve and how they're doing it so far. If they can articulate for someone else what they're trying to do with their ePortfolios and how they're trying to do it, they get a sense of how on-track they are. Also, presentation of work-in-progress can easily be combined with workshopping or other quick feedback by bringing in your eyes and/or the eyes of students who are working on the same kind of project. This has the added benefit of creating accountability and keeping students on track.

Because ePortfolios have a lot of moving parts, it's best to look at discrete pieces of in-progress work early on, to help your students focus on how the parts add up to the whole. You might require them to share the work of one page, or even of one section, but no more than that in the early stages. This will allow them to get feedback on, and troubleshoot, elements that aren't quite working yet. It will also allow them to be certain they're meeting all of the ePortfolio's requirements as they work.

> Assignment 15a: (Individual Artifact Pages or Sections) You can have them share a page or section in formal presentation style (one at a time in front of the whole class), or in a poster-session style, where students' computers have the pages/sections they're sharing pulled up, and students rotate around the room. In order for students to get the most out of presenting their work, it would be ideal to have them present no more than one page or section at a time, and ask them to explain what the page/section is trying to do for what audience, as well as what specific choices they made about the writing and design of that page/section to achieve that their purposes. For a handout you can provide your students to facilitate this kind of presentation and workshop, see **Supplement 8: "ePortfolio In-Progress Presentation--Page or Section."**

> Assignment 15b: Present Work-in-Progress (Landing Page and Navigation) Another way to help students take a step back and look at their work overall is to have them present their landing page and navigation together. Again, this may be done in formal presentation style or in a poster session style, but it's important to ask students to articulate the what, how, and why of their specific choices when they present their work. For a handout you can provide your students to facilitate this kind of presentation and workshop, see **Supplement 9: "ePortfolio In-Progress Presentation--Landing Page Intro, Navigation, and Design."**

Assignment 15c: Present Work-in-Progress (Visual Rhetoric) A great way to help them focus on the how their design works to create a cohesive argument is to ask them to walk an audience through the specific design choices they've made (in terms of color, layout, images/videos/audio, hyperlinks, etc.) to specifically appeal to their chosen audience, and how and why they find those choices appropriate. For a handout you can provide your students to facilitate this kind of presentation and workshop, see **Supplement 10: "ePortfolio In-Progress Presentation--Visual Design."**

Stage 3: Revising/Publishing
Each of these assignments provides a full description of how and when you might consider using them, and each strategy below includes a chart with suggested assignment sequences for that strategy.

Assignment 16: Peer Reviews/Conferences Peer reviews and or conferences with you are a great way to facilitate revision. Depending on the time you have in a unit, course, or program, you might require one or both of these things for discrete parts or complete drafts of the ePortfolios. One intuitive and time-efficient way to bring in peer revision and your own feedback would be to use student presentations of in-process work as an opportunity to respond. You might do this formally (in writing prepared after the presentations; in one-on-one or small-group conferences) or informally (on the spot, either in writing on a rubric or verbally. For advice on preparing for and running peer review workshops, please see the Sweetland Teaching Resource **"Using Peer Review to Improve Student Writing."**

Assignment 17: Peer Review/Conference Notes One way to help your students get the most out of peer review and instructor feedback--as well as to prepare materials that could be used as reflective framing in the ePortfolio--is to invite students to write reflections in which they specifically respond to the feedback they receive in the peer review and/or instructor conferences. They can use these reflections to identify the following:

- Advice they received from their peers that they plan to take, and why
- Advice they received from their peers that they decided against taking, and why
- Advice they received from you (if applicable) that they are going to follow, and why
- Advice they received from you (if applicable) that they decided not to follow, and why

Assignment 18: Revision Plans You could effectively use Assignment 19 as a springboard to this assignment. A revision plan is a written list of *substantive* tasks (not editing!) the writer needs to complete in order to create the strongest essay possible. It incorporates all feedback the writer has received and articulates how and why the writer will make use of the advice. This can be done in class or outside of class. For a handout to provide to your students, please see the supplement **"How to Write a Revision Plan"** in our **"Sequencing and Scaffolding Assignments"** Teaching Resource.

Assignment 19: Revision Labs If you have the time available, revision labs provide students time for attention to specific revision tasks they've identified. For instance, you might have a lab dedicated to

revising or refining ePortfolio navigation, or revising the landing page/reflective introduction, or revising other reflective material. It's a good idea to build in some accountability for making progress during the lab, for instance by asking them to submit their revisions before leaving, or asking them to write a reflection on what they accomplished and what they still need to do.

Assignment 20: Final ePortfolios with Post-Writes You might consider having students submit a post-write with their final ePortfolio that helps them articulate what revisions they've made along the way to this version. A typical post-write asks students to respond to the following questions (either in paragraph form or directly on a handout, one question at a time):
- Changes they've made to their final draft
- Why and how they made those changes
- What those changes demonstrate about their thinking/writing development

For further post-write ideas, see the Sweetland Teaching Resource **"Metacognition: Cultivating Reflection."**

Assignment 21: Publish Depending on the level of publicity or privacy you want your students' ePortfolios to have, consider asking them to publish their ePortfolios once they're complete. As we mentioned in the Basic Elements of Designing ePortfolios, the level of publicity they choose is up to you (ideally up to you and them), but do keep in mind that the more they understand that people outside the classroom can find their work, the more conscious they are of audience, and perhaps the more seriously they'll take the ePortfolio.

Assignment 22: Showcase Whether or not you decide to ask your students to make their ePortfolios fully public online, it's a great idea to arrange some sort of showcase so that your students can share their finished work, either among themselves or for a larger invited public. This instills a sense of purpose and urgency to their work, allowing them to make decisions about how to present their ePortfolios to their invited audiences.

While we have listed these assignments in a linear way, and we represent them in the sequencing suggestions below as falling into somewhat discrete stages, in actual practice they're most effective when we use them recursively. Moving back and forth among stages provides students a chance to repeat steps and make revisions along the way to the final product, which research shows leads to deeper learning. Below, we've offered some possible combinations for discrete, in-class assignments that you might use if you're integrating portfolios into an assignment or unit, program, or department. Again, these are some possibilities, and we encourage you to use your expertise and your needs to come up with variations optimal for your specific situations.

Strategies for Using ePortfolios at the Assignment or Unit Level

If you like the idea of providing opportunities for the kinds of self-reflective and presentational writing ePortfolios cultivate, but you're nervous about the idea of dedicating an entire course to the process, you might want to build an ePortfolio into an assignment or make one the culmination of a unit's work.

Strategy 1a: Single-Assignment ePortfolios

If the ePortfolio is for the work of a single assignment, you'll need to think about what artifacts they can create/save along the way to the ePortfolio. For instance, you might consider asking them to include some or all of the following kinds of artifacts:

- Pre-writing
  - This is obviously useful if the assignment they're creating the ePortfolio for is an essay or other conventional writing project. However, assignments in any discipline can benefit from thinking ahead. For example, if the assignment is to solve a math or economics problem, they might pre-write about what theories they'll need to understand to solve it, what formulas they'll need to master, where they anticipate bumps in the road, etc.
- Drafts or portions of the final product

Again, this can work in many cases besides traditional writing assignments--for a complicated equation, a case study, etc.

- Peer review notes
  - For advice on effective peer review, please see the Sweetland Teaching Resource, **"Using Peer Review to Improve Student Writing…"**
- Notes from conferences with you or your course/research assistant
  - In-process reflection
  - Build reflection in around any pieces that might be used in students' eportfolios to help them work on reflective/contextualizing text early in the process so that they have something to revise later for their formal, public reflections.
  - Perhaps they reflect on the peer review process, on meetings or email exchanges with you or someone else, perhaps on a problem they encountered as they worked on the project and a rationale for how they approached it, etc. The opportunities are endless, and they may vary widely from discipline to discipline--it's all about what kind of learning you want them to do.
- Revision plans or notes for problem-solving
- Post-project reflections

Suggested/Sample Sequence for a Single-Assignment ePortfolio

"Pre-Writing/Planning"	"Writing/Designing"	"Revising/Publishing"
1. ePortfolio Pre-Write	10. Build pages (*while* learning the platform, #3)	16. Peer Reviews / Conferences
4. Reverse-Engineer Models: whole-class	11. Create navigation	17. Peer Review / Conference Notes
7. Draft In-Process Artifact Reflections	12. Draft Reflective Intros	18. Revision Planning
	14. Integrate visuals & hyperlinks	20. Final w/ Post-Writes
	15b. Present Work-in-Progress (landing page & navigation)	21. Publish

This sequence has the benefit of potentially using the least in-class time, since only Assignment 2 *requires* full-class, in-person participation. Also, an ePortfolio built to represent a single assignment necessarily demands far less in the way of selection and revision.You could even still work in Assignments 16 and 17 if you take them online, rather than in class.

Strategy 1b: Unit ePortfolios
There are several benefits to ePortfolios including a whole unit in a course, which all increase the deep-learning and transfer potential. When students have an opportunity to include more than one finished project:
- they have more time to reflect on their processes.
- they have more opportunities for problem-solving and revision.
- they have more chances to get in-process feedback from peers and from you to deepen their thinking.
- they have more time to find and make connections to their work outside your class (in other courses, in their communities, etc.).
- they have more disparate artifacts among which to discover and create a cohesive argument about their development.

Suggested/Sample Sequence for a Unit ePortfolio

"Pre-Writing/Planning"	"Writing/Designing"	"Revising/Publishing"
4. Reverse-Engineer Models: whole-class	12. Draft Reflective Intros	16 & 17 Peer Reviews / Conferences & Notes
5. Reverse-Engineer Models: individuals or small groups	13. Draft Other Reflective Materials	18. Revision Planning
6. Collect Artifacts	14. Integrate visuals & hyperlinks	21. Publish
7. Draft In-Process Artifact Reflections	15b. Present Work-in-Progress (landing page & navigation)	22. Showcase

This sequence has the benefit of more explicit practice in drafting and revision, but combining several tasks into one allows you to keep the instruction time condensed and have some assignments achieve more than one goal.

Strategies for Using ePortfolios at the Course Level

Because of their focus on both product and process, and because of the opportunities they create for long-term learning, knowledge transfer, and self-efficacy, ePortfolios can be particularly helpful to students in not only in writing classes, but also in content-based courses.

Strategy 2a: Using ePortfolios for Writing Classes
ePortfolios are used in a variety of writing classes, from developmental (at UM, these are called "Transition to College Writing," but they take a variety of names at other institutions) to advanced. While you might be inclined to think ePortfolios should be approached differently in developmental writing courses than in more advanced writing courses, experience has shown us this is not the case. Instead, we recommend slowing down the pace in a developmental writing course, requiring fewer artifacts, and increasing the frequency and types of feedback. In fact, working all of these assignments into your course would be ideal. However, you could still do fewer formal assignments, leaving the others to cover primarily informally in class, and get good results. For example:

Suggested/Sample Sequence for a Developmental Writing Class

"Pre-Writing/Planning"	"Writing/Designing"	"Revising/Publishing"
1. ePortfolio Pre-Write	10 & 11 combined. Build pages & create navigation	17. Peer Review / Conference Notes
2. Analyze Audience	12. Draft Reflective Intros	18. Revision Planning
3. Select/Learn Platforms	14. Integrate visuals & hyperlinks	19. Revision Labs
4&5 combined. Reverse-Engineer Models: whole-class & small groups	15a. Present Work-in-Progress (individual artifact pages)	20. Final w/ Post-Writes
6. Collect Artifacts	15b. Present Work-in-Progress (landing page & navigation)	21. Publish
7. Draft In-Process Artifact Reflections	15c. Present Work-in-Progress (visual rhetoric)	22. Showcase
8. Find connections / articulate argument		

This sequence allows you to closely monitor students' development of the big picture pieces of their work formally, and you can also spend time in class and/or in conferences as needed working on the more detailed material informally. While there are a lot of great assignment options, it's not necessary to do every single assignment formally; once you get a sense of how your students are doing with the work, you're best equipped to know where to slow down, where to spend more explicit attention, etc. For instance, you might choose to have them present their landing page and navigation in class, and then assign them out-of-class group work/peer review where they present and respond to the other elements.

Suggested/Sample Sequence for an Advanced Writing Class

"Pre-Writing/Planning"	"Writing/Designing"	"Revising/Publishing"
2. Analyze Audience	10/11. Build pages & Create navigation	17. Peer Review / Conference Notes
3. Select/Learn Platforms	12. Draft Reflective Intros	18. Revision Planning
4. Reverse-Engineer Models: whole-class	13. Draft Other Reflective Materials	20. Final w/ Post-Writes
6. Collect Artifacts	14. Integrate visuals & hyperlinks	21. Publish
7. Draft In-Process Artifact Reflections	15b. Present Work-in-Progress (landing page & navigation)	22. Showcase
8. Find connections / articulate argument	15c. Present Work-in-Progress (visual rhetoric)	
9. Pitch ePortfolio Plan		

This sequence also allows for a wide breadth of practice, and you can make decisions (based on your students' experiences/competencies) about how much to dedicate to formal, in-class use of these assignments versus informal and/or out-of-class use. The more advanced your students are, generally the more assignments can be relegated to out-of-class work (i.e. online or in small groups meeting independently).

Strategy 2b: Using ePortfolios for Content-Based Courses
For content-based courses, you can easily use the ePortfolio as a way to increase mastery of content while also building writing skills. For some ideas on how to integrate writing into a content-based course in general, see the Sweetland Teaching Resource, **"Integrating Low-Stakes Writing into Large Classrooms."** In content-based courses, the ePortfolio assignments you use likely will not look different from the assignments in a writing-specific course--the difference will be in the topics the students' artifacts (projects) address and in what genres, as well as in the overall purpose and audience of the ePortfolio. For instance, if you're using ePortfolios in an anthropology course, your students' artifacts might include recordings and transcriptions of interviews, field notes, etc., in addition to traditional academic anthropology

papers. The audience for such an ePortfolio might well be a grant-offering institution or a lead researcher with whom a student might want to work.

Suggested/Sample Sequence for a Content-Based Course

"Pre-Writing/Planning"	"Writing/Designing"	"Revising/Publishing"
2. Analyze Audience	10/11. Build pages & Create navigation	17. Peer Review / Conference Notes
3. Select/Learn Platforms	12. Draft Reflective Intros	18. Revision Planning
4. Reverse-Engineer Models: whole-class	13. Draft Other Reflective Materials	20. Final w/ Post-Writes
6. Collect Artifacts	14. Integrate visuals & hyperlinks	21. Publish
7. Draft In-Process Artifact Reflections	15b. Present Work-in-Progress (landing page & navigation)	22. Showcase
8. Find connections / articulate argument	15c. Present Work-in-Progress (visual rhetoric)	
9. Pitch ePortfolio Plan		

Strategy 3: Using ePortfolios at the Program or Department Level

Teaching and other professional programs (such as nursing and dental hygiene) have been using ePortfolios most regularly for awhile now. However, ePortfolios offer as much value to programs across the curriculum, from the natural sciences to the humanities to the fine arts. Program- or department-level ePortfolios offer three distinct benefits that differ from their use at the assignment, unit, or course-level:

- ePortfolios integrated into the curriculum of a program or department allow students the most time to develop their symphonic selves and to make meaningful connections across their work over a significant span of time
- Long-term development of ePortfolios invite students the opportunity to tailor their ePortfolios for real-world audiences and move forward in their chosen disciplines or professions
- Program or departmental ePortfolios allow faculty and administration the opportunity for longitudinal study of student work and learning

Integrating ePortfolios into a program or department curriculum also means that you can make time for students to gain practice (even repeated practice) at every single type of assignment we list in this resource, and this can take place over the course of more than one semester, and under the tutelage of more than one instructor. Three ways you might consider integrating ePortfolios into your program or department are:

Strategy 3a: Program Assessment ePortfolios

Capstone portfolios are an excellent and widely used strategy for programmatic or departmental assessment of students' readiness for graduation or certification. (One local example is the Sweetland Center for Writing's Minor in Writing program, which uses both gateway and capstone ePortfolios to frame students' experience in the program.) To implement an ePortfolio this way, you will want to enlist program or department representatives to carefully evaluate how best the desired outcomes for your course of study would be represented in a collection of students' work. This will help you generate a list of required elements for the ePortfolio and integrate its teaching into the existing curriculum--whether you build it into an existing capstone course or you add a new course specifically for the development of the ePortfolio.

Strategy 3b: Professional or Graduate School-oriented ePortfolios

If your program or department would like to integrate ePortfolios into the curriculum without making them assessment-oriented, you might consider requiring students exiting your program or department to build either a professional ePortfolio (if they plan to enter the workforce immediately) or an ePortfolio aimed at gaining them admission to graduate or professional schools. Such an ePortfolio might be integrated into an existing course, or you might develop a new course specifically for the ePortfolio.

Further Reading:

Arola, Kristin L., Jennifer Sheppard, and Cheryl E. Ball. Writer/Designer: *A Guide to Making Multi-Modal Projects*. New York: Bedford/St. Martin's, 2014.

Cambridge, Darren, Barbara Cambridge, and Kathleen Yancey. *Electronic Portfolios 2.0: Emergent Research on Implementation and Impact*. Sterling, VA: Stylus, 2009.

Kilbane, Clare R. and Natalie B. Milman. *The Digital Teaching Portfolio Handbook: A How-To Guide for Educators*. Boston: Pearson, 2003.

Yancey, Kathleen Blake. *Ecologies, Eportfolios, Circulation* (Yancey, in press)

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