Making Digital Media: Building the Right Set of Tools

**Goal:** To give students a general knowledge of a wide range of tools for making digital media, the ability to analyze and assess new tools, and a feeling of empowerment to imagine and create novel media tools.

**Overview:** Digital media are tools. Certain machines, programs and systems are designed to do certain jobs. The challenge of the digital media artist is to know the suites of tools that are available, to be able to use them when they are appropriate, to combine them in interesting ways, to investigate and assess new tools in an efficient fashion, and to be able to create tools when existing tools fall short. This studio course will examine each of these topics, exposing students to a range of existing tools, giving students a conceptual framework with which to analyzing tools that are unfamiliar, and encouraging them to create tools of their own.

**Topics Covered:**
- We will begin with an exploration of a range of key tools for content acquisition, manipulation and output. (These tools will vary in accord with technological developments, interest, and availability).
  - Acquisition – How can we get content into a form that we can use? Scanners, mice, video cameras, digital still cameras, microphones, web resources, and other ways of acquiring content will be presented.
  - Manipulation – Once the data is inside the box, what should we do with it? Software for altering still images, moving images and sounds will be considered.
  - Output – What is the appropriate form factor for our finished product? Paper printers, screens, projectors, 3D printers, web-based media, and other output mechanisms will be addressed.
- New media will be compared to traditional media – for example, when is a pencil better than Photoshop? We will discuss the reasons why some tools are more serviceable than others – functionality, familiarity, speed, ease of use, etc.
- We will proceed with specific short projects in several of these tools, examining the commonalities and differences between them.
- We will discuss and experiment with ways of combining tools. Topics will include imagining the final product, conceptualizing sub-goals, and dynamically exploiting serendipity. The first major project will involve creating an original project using at least three major tool sets.
- In order to understand how to investigate and assess new tools, we will conceive of projects that our set of tools can not do. We will search for tools to serve these goals, utilizing the web, human contacts, and re-envisioning of our current tools.
- We will close with a discussion of mechanisms for building one’s own tools. This section will involve both computational and physical mechanisms for building or extending tools. The final project will involve each student creating a new digital tool.