

In 2015, journalists Mark Stencel and Kim Perry surveyed 31 news organizations about their hiring priorities for the coming year as part of a project funded by the Tow-Knight Center for Entrepreneurial Journalism at City University of New York. Using existing research, the authors developed a list of 21 core skills that they divided into two categories: foundational skills, such as editing, writing and beat reporting; and transformational skills, “[t]he abilities that newsrooms need to address and adapt to acute, broad and ongoing changes in the news audience, distribution, editorial practices and presentation” (2016). The top five skills desired by the organizations surveyed were all transformational, with the top skill—deemed a priority by 71 percent of news organizations—being “coding/development.”

Although Stencel and Perry did not specify what the “coding/development” category actually encompassed, within this context it is generally understood to mean writing computer instructions using human-readable text. This can mean either writing markup instructions that control the placement and formatting of elements on the screen or using an actual programming language. HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets) fall into the former category. HTML is used to place elements on the screen, while CSS is used to format those elements. JavaScript is the primary programming language for the web; it is designed to interface with HTML and CSS to add advanced page design and interactivity. Other programming languages used on the web include Python and PHP.

McAdams (2017) succinctly combines the foundational and transformative categories by asserting that “[i]f you believe a journalist should understand storytelling, then acknowledge that storytelling is not only done with writing. Video is storytelling. Code is also storytelling.” Similarly, Usher notes that “as journalism contends for relevancy in the digital environment, coding skills have become increasingly important” (2016: 72), and that “code enables journalism to be expressed through software. . . on a scale previously unseen and unlike what has come before” (2016: 3). Interactives—multilayered, interactive multimedia journalistic presentations—perhaps most impressively demonstrated by the *New York Times*’ Pulitzer-winning “Snow Fall” feature about a 2012 avalanche in Washington—have shown the storytelling possibilities when sophisticated coding is combined with talented artists and reporters. The increasing prevalence of data journalism stories online also suggests the potential for combining coding and traditional journalism skills, as some measure of coding expertise is often necessary to organize, present and extract meaning from digital datasets.