The Roles of Journalists in Online Newsrooms

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This study attempts to define which skills and intangible characteristics are most important in online newsrooms. The findings come from online surveys of people working for online news sites. The survey, administered in November and December of 2005, sought to identify the skills and characteristics that hiring managers are looking for, and also the skills and responsibilities that are most important in the typical workdays of online journalists. It is only a snapshot of one particular point in time, and cannot predict what will be important to online journalism in the future. But because it includes input from 438 people working in online news environments, we hope it will be useful for companies hiring online journalists, those working in the field, and students considering careers in this area.

The survey findings depict an online journalism that is tethered to traditional journalism in many ways, but is not merely a more technologically focused version of traditional journalism. The picture that emerges from this study is of journalists who must be well-versed in many aspects of journalism and technology, rather than experts in one or two types of tasks. For online journalists and their managers, this report will provide a look at the current state of their industry. For future online journalists, this report will give an idea of which skills are needed to work at an existing news Web site (or to start their own). And for educators, it may help in developing the appropriate curriculum to prepare people to work in this field.

Methodology

Two surveys were conducted online. One was open to professional members of the Online News Association. We decided to survey members of ONA because it is the largest organization of people who work in online journalism. A total of 239 members responded. We expected, and found, that the membership skews toward managers and large organizations. We did a second survey, open to whoever cared to respond, to cast a wider net. Several prominent journalism blogs (including LostRemote.com, BuzzMachine.com and Bayosphere.com) publicized the survey. This survey yielded 199 responses, including a greater representation from smaller sites. While we cannot say that the aggregate data is representative of all sites or all people currently working in online news, there was no practical way to randomly sample everyone who works in this field. We believe that the results can be useful in understanding different perspectives of managers and producers, small sites and large sites, unaffiliated sites and affiliated sites.

Managers were defined as those who "manage online operations and/or content production," and they were asked to rate the skills ideal in a potential job candidate. Producers were defined as those who "create, edit or package online content," and they were

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¹ This research project was conducted as an independent study as part of the author's master's degree program at the Medill School of Journalism, under the direction of Associate Prof. Rich Gordon and with the cooperation of the Online News Association.

asked to rate skills based on how often they used those skills. For the results, we identified two benchmarks to look at. From the manager results, we looked at the percentage of managers who rated a given skill as "a requirement to be considered for this job." This was the highest out of four possible ratings. This set of results gives the minimum skill set that any online journalist must have to be considered for a job. From the producer results, we looked at the percentage of producers who indicated they used a skill as either "frequently (several times per week)" or "almost every workday," options three and four out of four possible options. This set of results gives the set of skills that an online journalist can be expected to use on a regular basis on the job.

We also looked at the results as divided by size of organization and type. The size number refers to those at a news organization "whose primary duties involve online news production or overseeing online news production as a supervisor." Small online operations involve 1 to 5 people, mid-sized involve 6 to 20 people and large involve over 20 people. The news organizations were divided into three types, as well:

- Newspaper sites
- Non-newspaper sites (these included the news Web sites of network, broadcast and cable television stations as well as sites for radio stations and magazines)
- Unaffiliated sites (sites that have no off line counterpart).

The survey included 35 skills divided into four categories – Attitudes and Intangibles, Editing and Copy-editing Skills, Content Creation, and Online Production Tools.

Attitudes and Intangibles

Managers		Producers					
% who said: a requirement to be			% who use this skill frequently or every day				
Attitudes and Intangibles	considered for this job	Attitudes and Intangibles					
Attention to detail	91.9%	Multitasking ability	94.9%				
Ability to work under time pressure	90.7%	Attention to detail	94.9%				
Communication skills	85.2%	Communication skills	94.9%				
Multitasking ability	84.3%	Ability to work under time pressure	94.4%				
Teamwork and collaboration ability	84.3%	Organization	88.4%				
Ability to learn new technologies	79.2%	Awareness of new technology	84.8%				
Organization	68.6%	Teamwork and collaboration ability	84.8%				
Awareness of new technology	56.8%	Project management skills	82.8%				
Project management skills	36.0%	Ability to learn new technologies	80.3%				
Managing user-generated content	34.7%	Cultivating online communities	57.8%				
Cultivating online communities	29.5%	Understanding of business/revenue issues	55.6%				
Understanding of business/revenue issues	17.8%	Managing user-generated content	51.0%				

In preliminary interviews while preparing this survey, online journalists said that what makes online journalism different isn't so much the technical aspects as a different way of thinking. Online news producers described a willingness to learn new things, multitasking and teamwork as very important to the job. More generally, these attitudes were summed up as the ability to "think online" – and the ability to convince others to do the same. They are the qualities that nearly all the hiring managers are looking for and that nearly all the producers use every day, and as such this category consistently outranked all of the other skill categories. (After all, things like attention to detail and multitasking ability are pretty much considered universally good traits for any job candidate and are important for many jobs.) Still, despite being highly ranked by nearly all respondents, interesting patterns did emerge in this skills category:

- Attention to detail, ability to work under time pressure, multitasking ability and teamwork were universally important.
- Teamwork was less important at small online operations and more important at mid-sized and large online operations.
- Managers placed a high value on the ability to learn new technology and less importance on awareness of new technologies. Producers reversed these two skills, implying that online journalists should be able to learn new technologies in order to get hired, but, once working, an awareness of new developments in the field will be more vital.
- Only the "open survey" respondents were asked about cultivating online communities and managing user-generated content. These skills were deemed more important than most online production skills and content creation skills.
- An understanding of business and revenue issues is more important at unaffiliated sites.

Implications: This set of skills is the most important to online journalists. It is also the most imprecise. Students must be taught to think like journalists – attention to detail, ability to work under time pressure, communication skills – but they must also be able to "think online" – multitasking, awareness of and ability to learn new technologies, understanding of business and revenue issues. Many of these skills come with experience. Students should be encouraged to publish online. By having their work publicly accessible online, students will be encouraged to think like journalists while also thinking about the implications of working online. Students should also be encouraged to become engaged with online journalism by reading news Web sites, blogs and by learning how and where to keep up to date with latest developments in what is still a young and swiftly evolving field. New media journalism programs should have features that replicate the experience of working online with a daily deadline or multiple daily deadlines.

Editing and Copy-Editing Skills

Manag	gers	Producers				
% who said: a requirement to be			% who use this skill frequently or every day			
Editing and copyediting	considered for this job	Editing and copyediting				
News judgment	78.4%	News judgment	88.4%			
Grammar and style	70.3%	Grammar and style	81.3%			
Headline writing for the Web	45.8%	Headline writing for the Web	76.3%			
Story combining/shortening	38.1%	Story combining/shortening	64.1%			
Caption writing for the Web	37.7%	Caption writing for the Web	64.1%			

Editing and copy-editing skills, which are the backbone of journalism production in any kind of media, are of high importance to the online journalist. Respondents were polled about news judgment, grammar and style, headline and caption writing for the Web, and story combining and shortening.

- As a group, these skills were consistently ranked higher than journalism production and online production skills. One conclusion that can be drawn from this is that online journalists should be as prepared to be copy editors in the traditional journalism sense as they are to be content creators and technology afficionados.
- Story combining and shortening is less important at newspaper sites.

Implications: One conclusion that can be drawn from this is that online journalists should be prepared to be copy editors. A program designed to train online journalists should be weighted in favor of teaching editing and copy-editing skills. These skills underpin all journalistic work, but they are very important in the new medium as well. News judgment should receive a great deal of attention. Considering that news Web sites are, in many cases, updated 24 hours a day, journalists are involved in a round-the-clock decision-making process about how and where to play different stories. Insomuch as this type of news judgment is different from that practiced by a print reporter or editor, the online form of news judgment should be defined and online journalists should be trained heavily in this area. As much as is possible in an academic setting, online journalism students should be well-trained enough in this area that it becomes second nature. Grammar and style, whether it comes from the AP Stylebook or an in-house style guide, is universal to all forms of journalism. As a new medium, online journalism is not exempted from the importance of this skill. Headline and caption writing are traditionally the realms of copy editors, but they should also be a part of the skill set of online journalists. As with news judgment, insomuch as these skills differ from their offline counterparts, they should be taught in a way that prepares students to perform these tasks in an online environment. Another traditional copy editing skill, story combining and shortening, is of importance to the online journalist. As is mentioned above, educators should identify how this skill might be different from its off line counterparts and it should be taught accordingly, though it is of slightly less importance than the skills mentioned above

Content Creation

Managers		Producers					
% who said: a requirement to be			% who use this skill frequently or every day				
Content creation	considered for this job	Content creation	nequently of every day				
Reporting and writing original stories	35.6%	Photo editing	49.0%				
Photo editing	28.4%	Reporting and writing original stories	43.9%				
Alternative story forms (polls, quizzes, Q&	24.2%	Alternative story forms (polls, quizzes, Q&	37.4%				
Audio production	18.6%	Audio production	22.7%				
Video production	16.9%	Video production	21.7%				

Based on the survey, it's clear that some organizations expect their online journalists to produce content while other organizations expect them to manage it. Respondents were polled about reporting and writing original stories, photo editing (selection and optimization of photos for the Web), alternative story types (like lists, polls and quizzes), and audio and video production. As a group these skills were consistently ranked lower than editing and copy-editing skills and on par with online production skills. One conclusion that can be drawn from this is that online journalists should not expect to be content producers in the same sense as their off line counterparts, but they should be prepared to produce content if the job calls for it.

- The importance of reporting and writing original stories varied widely in importance depending on size and type of organization. Reporting and writing is of low importance at newspaper sites and of high importance at unaffiliated sites.
- Photo editing also varied in importance depending on size and type of organization, but it is most important at newspaper sites.

- Managers at large online operations and producers and managers of newspapers also were more likely to emphasize the importance of alternative story types, while producers and managers of unaffiliated sites rated this skill lower.
- Audio production was fourth and video production fifth out of the five content
 creation skills. Managers at small online operations and newspapers and producers at
 mid-sized online operations and newspaper sites were likely to rate audio production
 higher, and producers at non-newspaper sites were likely to rate video higher. Neither
 of these skills were rated highly by producers and managers at unaffiliated sites.

Implications: Content creation skills are important for online journalists, but as part of a set of skills, not as a primary focus. Reporting and writing is likely the centerpiece of most journalism programs, and most hiring managers in online journalism will want some experience in this area. However, students aspiring to work at newspaper sites should not expect to do a lot of reporting and writing (only about 22 percent of producers at newspaper sites responded that they are reporting and writing as often as several times a week). On the other hand, students who hope to work at or start their own unaffiliated sites should expect to report and write often. Online journalism programs should devote as much time to photo editing and optimization and alternative story types as they do to reporting and writing. Audio and video production are less important than these, but still more important than many of the technology skills that will be discussed below. The typical online news producer should expect to spend more time performing editing and copy-editing type tasks than they do on content creation.

Online Production Tools

Managers		Producers					
% who said: a requirement to be			% who use this skill frequently or every day				
Online production tools	considered for this job	Online production tools					
HTML	44.1%	Use of a content management sysytem	72.7%				
Photoshop	36.0%	HTML	71.7%				
Use of a content management sysytem	35.2%	Photoshop	55.6%				
Web usability	28.8%	Web usability	44.4%				
Dreamweaver or other Web page authoring	19.5%	Dreamweaver or other Web page authoring	38.4%				
Web design	18.6%	Web design	37.9%				
Multimedia authoring	13.1%	Metrics analysis	32.8%				
CSS (Cascading Style Sheets)	11.9%	Multimedia authoring	26.8%				
Flash	9.7%	CSS (Cascading Style Sheets)	23.2%				
Scripting languages (PHP, ASP, etc)	8.5%	Scripting languages (PHP, ASP, etc)	15.7%				
Javascript	7.2%	Flash	14.6%				
Metrics analysis	6.8%	Database design/administration	14.6%				
Database design/administration	4.2%	Javascript	13.6%				

Online journalists make their living in the online medium and thus it is natural that they are expected to be conversant in a variety of technologies. It is clear from the survey results that news organizations expect online journalists to have some understanding of a variety of technologies. But in some cases, mastery of technology is less important than content creation skills. And in most cases, mastery of technology is less important than editing and copy-editing skills. Mastery of technology is important to the online journalist, but this alone does not make an online journalist. Respondents were asked about HTML, Photoshop, use of content management systems (CMS), Web usability, Dreamweaver (and other Web site authoring tools), Web design, multimedia authoring, CSS (cascading style sheets), Flash, scripting languages (PHP, ASP, etc.), JavaScript, metrics analysis and database design and administration.

- HTML, use of content management systems, and Photoshop were the three most highly rated skills.
- Nearly 72 percent of producers reported using HTML as often as several times a week, and more than 44 percent of managers indicated that knowledge of HTML was a requirement to be considered for a job.
- HTML is more important at newspaper sites.
- Producers, as a group, indicated that use of content management systems was the most important of the online production skills with nearly 73 percent of producers saying that they used this skill as often as several times a week.
- Content management systems are more important at larger online operations.
- Photoshop was the rated as the most important piece of software for online journalists to know.
- Photoshop is more important at newspaper sites and less important at online only operations.
- None of the remaining online production skills are used as often as several times a week by more than 40 percent of producers, and no more than 20 percent of managers see mastery of any of the remaining skills as requirements to be hired for a job.
- Dreamweaver, Web design, multimedia authoring, CSS and Flash were all more highly rated by managers and producers at newspaper sites than at other types of sites.
- Metrics analysis was rated very low by managers with fewer than 7 percent reporting that mastery in this area was a requirement to be hired for a job, but nearly 34 percent of producers reported performing metrics analysis as often as several times a week, a much higher discrepancy than for other skills in this area.

Implications: Editing and copy-editing skills and content creation skills should be at the core of an online journalism curriculum, not online production skills. However, students should master HTML, Photoshop and content management systems. Though content management systems vary widely in their architecture from site to site, the principles of using such a system are universal. Experience with any content management system while in school will likely help students more easily master the systems they encounter as professionals. While not as important as the first three online production skills, Web usability was rated as being important by a significant number of respondents. Students wanting to work at a newspaper site should spend more time on Web design and multimedia skills. Finally, though hiring managers don't deem it an essential skill for job candidates, online journalists can expect to do some metrics analysis – possibly because job performance is judged based on such metrics – and so may benefit from some training in that area. Other technology skills – scripting languages, JavaScript and database design and administration - appear to be of more specialized importance and should thus be part of online journalism curriculum only on an elective basis.

Appendix - Data Tables

Paguired ich skille Managere									
Required job skills - Managers Percent saying this is a job requirement (with rank in each size category)									
All sizes 1.5 employees 6.20 employees >20 employees									
		Percent				Percent		Rank Percent	
Assertion to detail				88.9%	2 Rank		1 1		
Attention to detail	1 2		1	83.8%	1	95.0% 97.5%		93.0%	
Ability to work under time pressure							1	93.0%	
Communication skills	3		2	87.9%	6	80.0%	3	87.7%	
Multitasking ability	4	84.3%	4	81.8%	3	86.3%	5	86.0%	
Teamwork and collaboration ability	4	84.3%	5	80.8%	3	86.3%	3	87.7%	
Ability to learn new technologies	6	79.2%	6	79.8%	7	77.5%	7	80.7%	
News judgment	7	78.4%	7	73.7%	5	81.3%	6	82.5%	
Grammar and style	8		8	67.7%	9	72.5%	8	71.9%	
Organization	9		9	64.6%	8	75.0%	9	66.7%	
Awareness of new technology	10		10	52.5%	10	60.0%	10	59.6%	
Headline writing for the Web	11	45.8%	14	42.4%	12	41.3%	11	57.9%	
HTML	12	44.1%	11	46.5%	11	42.5%	14	42.1%	
Story combining/shortening	13		20	34.3%	14	37.5%	13	45.6%	
Caption writing for the Web	14	37.7%	22	28.3%	14	37.5%	12	54.4%	
Project management skills	15		17	37.4%	13	37.5%	16	31.6%	
Photoshop	15		12	44.4%	16	33.8%	19	24.6%	
Reporting and writing original stories	17	35.6%	16	39.4%	16	33.8%	16	31.6%	
Use of a content management sysytem			19	35.4%	18	30.0%	14	42.1%	
Managing user-generated content	19		13	43.4%	20	28.1%	28	10.0%	
Cultivating online communities	20		15	39.6%	23	21.9%	35	0.0%	
Web usability	21	28.8%	21	31.3%	18	30.0%	20	22.8%	
Photo editing	22	28.4%	18	36.4%	21	25.0%	22	19.3%	
Alternative story forms	23		26	21.2%	21	25.0%	18	28.1%	
Dreamweaver	24		23	25.3%	28	11.3%	21	21.1%	
Audio production	25		25	22.2%	25	17.5%	26	12.3%	
Web design	25		23	25.3%	26	15.0%	26	12.3%	
Understanding of business issues	27	17.8%	29	15.2%	24	20.0%	22	19.3%	
Video production	28		27	17.2%	27	15.0%	22	19.3%	
Multimedia authoring	29	13.1%	29	15.2%	28	11.3%	26	12.3%	
CSS (Cascading Style Sheets)	30	11.9%	28	16.2%	32	8.8%	29	8.8%	
Flash	31	9.7%	31	10.1%	30	10.0%	29	8.8%	
Scripting languages (PHP, ASP, etc)	32	8.5%	32	9.1%	32	8.8%	33	7.0%	
Javascript	33	7.2%	33	6.1%	34	7.5%	29	8.8%	
Metrics analysis	34	6.8%	35	3.0%	30	10.0%	29	8.8%	
Database design/administration	35	4.2%	33	6.1%	35	3.8%	34	1.8%	

Note: The skill sets are color coded based on the following key:

- Gray: Attitudes and intangibles
- Aqua (light blue): Editing and copy editingGreen: Online production tools
- Orange: Content creation

Required job skills - Managers									
Percent saying this is a job requirement (with rank in each type category)									
		types	newspapers		non-newspapers			ffiliated	
	Rank	Percent	Rank	Percent	Rank	Percent		Percent	
Attention to detail	1			94.0%		95.7%	3	75.0%	
Ability to work under time pressure	2		2	93.3%	2	92.9%	3	75.0%	
Communication skills	3		5	84.3%	3	88.6%	1	81.3%	
Multitasking ability	4		4	88.1%	4	80.0%	2	78.1%	
Teamwork and collaboration ability	4		3	91.0%	4	80.0%	8	65.6%	
Ability to learn new technologies	6	79.2%	6	82.8%	7	77.1%	6	68.8%	
News judgment	7		7	79.1%	6	78.6%	3	75.0%	
Grammar and style	8		9	70.9%	8	70.0%	6	68.8%	
Organization	9		8	72.4%	9	67.1%	11	56.3%	
Awareness of new technology	10		10	60.4%	10	51.4%	12	53.1%	
Headline writing for the Web	11	45.8%	12	50.0%	12	44.3%	17	31.3%	
HTML	12		11	54.5%	17	34.3%	19	21.9%	
Story combining/shortening	13		16	35.8%		40.0%	14	43.8%	
Caption writing for the Web	14		14	42.5%	14	37.1%	21	18.8%	
Project management skills	15	36.0%	15	36.6%	19	30.0%	13	46.9%	
Photoshop	15		13	44.8%	20	28.6%	23	15.6%	
Reporting and writing original stories	17		23	24.6%	11	45.7%	9	59.4%	
Use of a content management sysytem	18		17	35.1%	15	35.7%	16	34.4%	
Managing user-generated content	19		19	31.0%	18	30.4%	10	57.1%	
Cultivating online communities	20		20	29.3%	22	21.7%	15	42.9%	
Web usability	21		22	27.6%	15	35.7%	21	18.8%	
Photo editing	22		18	32.8%	21	22.9%	19	21.9%	
Alternative story forms	23		21	28.4%	24	20.0%	23	15.6%	
Dreamweaver	24		24	22.4%	25	18.6%	27	9.4%	
Audio production	25			20.9%	26	17.1%	26	12.5%	
Web design	25			20.9%		15.7%	23	15.6%	
Understanding of business issues	27		30	13.4%	23	21.4%	18	28.1%	
Video production	28		27	19.4%	26	17.1%	31	6.3%	
Multimedia authoring	29		29	14.2%	29	12.9%	27	9.4%	
CSS (Cascading Style Sheets)	30		28	16.4%		7.1%	32	3.1%	
Flash	31		31	11.9%	31	8.6%	32	3.1%	
Scripting languages (PHP, ASP, etc)	32		33	7.5%	30	10.0%	27	9.4%	
Javascript	33		32	9.0%		7.1%	35	0.0%	
Metrics analysis	34		34	6.0%		7.1%	27	9.4%	
Database design/administration	35	4.2%	35	3.7%	35	4.3%	31	6.3%	

Note: The skill sets are color coded based on the following key:

Gray: Attitudes and intangibles

Aqua (light blue): Editing and copy editing

Green: Online production tools

Orange: Content creation

Required job skills - Producers									
Percent saying they use this skill frequently or every day (with rank in each size category)									
	All sizes		1-5 employees		6-20 employees				
	Rank	Percent	Rank	Percent	Rank	Percent		Percent	
Multitasking ability	1		3	92.5%		100.0%	3	95.5%	
Attention to detail	1		2	93.4%		95.8%	1	97.7%	
Communication skills	1		1	94.3%	4	97.9%	4	93.2%	
Ability to work under time pressure	4		4	90.6%	1	100.0%	1	97.7%	
Organization	5		6	84.9%	7	93.8%	5	90.9%	
News judgment	5		5	85.8%	5	95.8%	8	86.4%	
Awareness of new technology	7		7	82.1%	9	85.4%	5	90.9%	
Teamwork and collaboration ability	7		12	75.5%	1	100.0%	5	90.9%	
Project management skills	9		9	79.2%	7	93.8%	9	79.5%	
Grammar and style	10		8	80.2%	9	85.4%	9	79.5%	
Ability to learn new technologies	11		10	78.3%	9	85.4%	9	79.5%	
Headline writing for the Web	12		11	76.4%		77.1%	13	75.0%	
Use of a content management sysytem	13		14	68.9%	14	77.1%	12	77.3%	
HTML	14		13	70.8%		79.2%	15	65.9%	
Story combining/shortening	15		16	63.2%	16	66.7%	16	63.6%	
Caption writing for the Web	15		20	53.8%	12	81.3%	14	70.5%	
Cultivating online communities	17	57.8%	15	63.6%		55.6%	19	38.9%	
Photoshop	18		18	59.4%		62.5%	20	38.6%	
Understanding of business issues	18		16	63.2%		54.2%	20	38.6%	
Managing user-generated content	20		19	56.1%	19	55.6%	24	27.8%	
Photo editing	21		22	48.1%		62.5%	22	36.4%	
Web usability	22		21	51.9%		47.9%	26	22.7%	
Reporting and writing original stories	23		23	46.2%	25	39.6%	18	43.2%	
Dreamweaver	24		25	41.5%		45.8%	26	22.7%	
Web design	25		24	43.4%		39.6%	26	22.7%	
Alternative story forms	26		28	28.3%	24	45.8%	17	50.0%	
Metrics analysis	27		26	34.0%		33.3%	23	29.5%	
Multimedia authoring	28		29	24.5%	28	33.3%	25	25.0%	
CSS (Cascading Style Sheets)	29		27	30.2%	31	18.8%	33	11.4%	
Audio production	30		32	17.0%		37.5%	29	20.5%	
Video production	31		32	17.0%		33.3%	29	20.5%	
Scripting languages (PHP, ASP, etc)	32		30	20.8%		10.4%	34	9.1%	
Flash	33		35	11.3%	31	18.8%	31	18.2%	
Database design/administration	33		31	18.9%	33	12.5%	35	6.8%	
Javascript	35	13.6%	34	14.2%	35	8.3%	31	18.2%	

Note: The skill sets are color coded based on the following key:

Gray: Attitudes and intangibles

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Green: Online production tools

Orange: Content creation

Required job skills - Producers									
Percent saying they use this skill frequently or every day (with type in each size category)									
		types		/spapers	non-newspapers		unaffiliated		
	Rank	Percent	Rank	Percent	Rank	Percent		Percent	
Multitasking ability	1		1	98.4%		96.9%	2	89.9%	
Attention to detail	1	94.9%	2	96.9%	1	98.5%	2	89.9%	
Communication skills	1		2	96.9%		95.4%	1	92.8%	
Ability to work under time pressure	4		2	96.9%	1	98.5%	5	88.4%	
Organization	5		6	93.8%		90.8%	7	81.2%	
News judgment	5		10	85.9%		89.2%	2	89.9%	
Awareness of new technology	7		9	87.5%	8	87.7%	8	79.7%	
Teamwork and collaboration ability	7		5	95.3%		90.8%	14	69.6%	
Project management skills	9		7	89.1%		80.0%	8	79.7%	
Grammar and style	10		13	76.6%	9	83.1%	6	84.1%	
Ability to learn new technologies	11		7	89.1%		73.8%	10	78.3%	
Headline writing for the Web	12		15	70.3%		81.5%	11	76.8%	
Use of a content management sysytem	13		11	78.1%		76.9%	16	63.8%	
HTML	14		11	78.1%		66.2%	12	71.0%	
Story combining/shortening	15		24	45.3%		76.9%	14	69.6%	
Caption writing for the Web	15		16	62.5%		75.4%	20	55.1%	
Cultivating online communities	17		18	52.0%		47.2%	13	70.7%	
Photoshop	18		14	73.4%		55.4%	22	39.1%	
Understanding of business issues	18		23	46.9%		56.9%	17	62.3%	
Managing user-generated content	20		18	52.0%		44.4%	19	56.1%	
Photo editing	21		17	59.4%		53.8%	23	34.8%	
Web usability	22		22	48.4%		36.9%	21	47.8%	
Reporting and writing original stories	23		32	21.9%		46.2%	17	62.3%	
Dreamweaver	24		20	51.6%		29.2%	23	34.8%	
Web design	25		24	45.3%		33.8%	23	34.8%	
Alternative story forms	26		20	51.6%		44.6%	31	17.4%	
Metrics analysis	27		29	26.6%		36.9%	23	34.8%	
Multimedia authoring	28		26	37.5%		20.0%	28	23.2%	
CSS (Cascading Style Sheets)	29		28	31.3%		12.3%	27	26.1%	
Audio production	30		27	34.4%		21.5%	33	13.0%	
Video production	31		30	23.4%		27.7%	32	14.5%	
Scripting languages (PHP, ASP, etc)	32		35	14.1%		12.3%	29	20.3%	
Flash	33		30	23.4%		10.8%	35	10.1%	
Database design/administration	33		34	17.2%		7.7%	30	18.8%	
Javascript	35	13.6%	33	18.8%	34	9.2%	33	13.0%	

Note: The skill sets are color coded based on the following key:

Gray: Attitudes and intangibles

Aqua (light blue): Editing and copy editing

Green: Online production tools

Orange: Content creation