



**U.S. Department of Justice**

**Civil Rights Division**

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August 30, 2016

**VIA U.S. AND ELECTRONIC MAIL**

Chancellor Nicholas B. Dirks  
University of California, Berkeley  
Office of the Chancellor  
200 California Hall, #1500  
Berkeley, CA 94720-1500

Mr. Christopher M. Patti  
Chief Campus Counsel &  
Associate General Counsel  
Mr. David Robinson  
Associate Campus Counsel  
Office of Legal Affairs  
200 California Hall, #1500  
Berkeley, CA 94720-1500

**Re: The United States' Findings and Conclusions Based on its Investigation Under Title II of the Americans with Disabilities Act of the University of California at Berkeley, DJ No. 204-11-309**

Dear Chancellor Dirks, Mr. Patti, and Mr. Robinson:

The United States Department of Justice (the Department) investigated the University of California at Berkeley (UC Berkeley) under title II of the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. §§ 12131-12134, and the regulation implementing the ADA, 28 C.F.R. Part 35. UC Berkeley is a public entity subject to the ADA and its regulation. 42 U.S.C. § 12131(1)(B); 28 C.F.R. § 35.104. The ADA prohibits discrimination against qualified individuals with disabilities by public entities. The Department is authorized to investigate compliance with the ADA and issue findings. 42 U.S.C. § 12133; 28 C.F.R. § 35.172. The Department investigated the accessibility of UC Berkeley's free audio and video content available to the public on UC Berkeley's YouTube channel and iTunes U

platform as well as its Massive Open Online Courses (MOOCs) offered on the edX learning management platform (UC BerkeleyX); collectively, we refer to audio and video content and MOOCs as “online content.”

The ADA’s nondiscrimination mandate states that no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of services, programs, or activities of a public entity, or be subjected to discrimination by a public entity. 42 U.S.C. § 12132; 28 C.F.R. § 35.130(a). The Department is authorized to file a civil action in federal court if the Attorney General finds a violation of the ADA. 42 U.S.C. § 12133; 28 C.F.R. Part 35, Subpart F.

The Department opened its investigation of UC Berkeley based on a complaint alleging that UC Berkeley’s free, publically available online content is inaccessible to individuals who are deaf or hard of hearing. As part of its investigation, the Department spoke with representatives for the National Association of the Deaf (NAD), the complainant in this matter, as well as Stacy Nowak and Glenn Lockhart, individuals who are deaf and would like to use UC Berkeley’s online content if it were accessible, but who cannot fully use it because it is largely inaccessible. The Department also reviewed UC Berkeley’s policies and practices relating to the provision of accessible online content to individuals with hearing, vision and manual disabilities and interviewed UC Berkeley administrators and staff with accessibility expertise. The Department conducted an extensive review of UC Berkeley’s online content, including 26 MOOCs, 30 lectures on YouTube, and 27 courses on iTunesU. Based on this review, the Department has determined that significant portions of UC Berkeley’s online content on UC BerkeleyX, its YouTube channel and its iTunes U platform are not accessible to individuals with hearing, vision or manual disabilities. The problems identified by the Department – for instance, videos without captions that are totally inaccessible to people who are deaf or hard of hearing – mean that individuals with disabilities are denied the full and equal enjoyment of UC Berkeley’s services.

The Department appreciates the cooperation it has received from UC Berkeley during the investigation, as well as UC Berkeley’s ongoing efforts to improve the accessibility of its online content. Set forth below are the Department’s findings of fact regarding the accessibility of UC Berkeley’s online content, the Department’s conclusions of law, and the steps UC Berkeley must take to comply with the ADA.

## **I. Findings of Fact**

### **a. Aggrieved Individuals**

Stacy Nowak, a member of NAD, is a professor and PhD student at Gallaudet University and she is deaf. Ms. Nowak would like to avail herself of what she believes is the increasingly frequent use of video and audio-based scholarship. Ms. Nowak teaches communication courses at Galludet, including Introduction to Communication and Nonverbal Communication. She would like to use numerous online resources related to communication in her classes, including the UC BerkeleyX course, “Journalism for Social Change,” but cannot because they are inaccessible. If UC Berkeley’s online content were accessible, she would take courses and utilize the online content in her lectures.

Glenn Lockhart, also a member of NAD, is responsible for web, print and video communications at the Laurent Clerc National Deaf Education Center (the birth-age 12 component of Gallaudet), and he is deaf. He is interested in trends and information in the communications field for both personal and professional reasons, and would like to take online classes on this subject. He tried unsuccessfully to access communications courses at UC Berkeley about a year ago, and he would be interested in such courses now if they were accessible, particularly the Media Studies 104A course.

## **b. UC Berkeley's Online Content**

UC Berkeley is one of nine universities within the University of California system and is based in Berkeley, California. UC Berkeley makes thousands of courses, lectures, and other campus events available in video and audio formats through its MOOCs and on its YouTube channel and its iTunesU platform.

### **i. UC BerkeleyX**

Since May 2012, UC Berkeley, in partnership with edX, an online learning platform, has made MOOCs available online through UC BerkeleyX. MOOCs are courses of study available online to the public, for free. UC Berkeley shares with edX “the educational missions of increased access, excellence in instruction, and the support of research to make online learning more effective and understand its role in the overall educational mission.”<sup>1</sup> UC Berkeley offers a wide range of MOOCs on UC BerkeleyX, such as writing (Principles of Written English, Academic and Business Writing, English Grammar and Essay Writing, and Journalism and Social Change) and math and science (Introduction to Statistics, Artificial Intelligence, Electronic Interfaces, Engineering Software as a Service, and Quantum Mechanics and Quantum Computation). UC BerkeleyX courses are offered on a semester basis or on a self-paced basis (available at any time).

UC Berkeley's faculty creates and publishes courses for the public on UC BerkeleyX. Faculty developing UC BerkeleyX courses can, but are not required to, develop courses in collaboration with the Berkeley Resource Center for Online Education (BRCOE). BRCOE follows best practices in design for accessibility and also has a quality assurance process that includes deploying various accessibility evaluators; remediating layout, page structure, downloadable or styling accessibility barriers; and obtaining transcripts of all audio and video files associated with a course.

Prior to July 1, 2015, UC Berkeley also allowed faculty and instructors to design, develop and publish courses through a self-service model, which did not include support from BRCOE. Beginning July 1, 2015, UC Berkeley advised the Department that all faculty using the self-service model will be asked to sign off on a list of accessibility resource reviews prior to publishing the course. The sign-off statements include:

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<sup>1</sup> *UC BerkeleyX – Free Courses from Berkeley*, edX, <https://www.edx.org/school/uc-berkeleyx> (last visited Feb. 22, 2016).

1. I have reviewed and implemented edX's "Guidelines for Creating Accessible Content."<sup>2</sup>
2. All PDFs attached to my course follow the University of California Office of the President recommendations.<sup>3</sup>
3. I have reviewed and implemented applicable guidelines into my course from the Web Accessibility team's resource "Top 10 Tips for Making your Website Accessible."<sup>4</sup>
4. All mp3 and mp4 files in my course have been submitted for transcripts for SubRip Text (SRT) files.
5. All video and audio in my course have accurate captioning available to users through the edX HTML5 player.

Between March and April 2015, the Department reviewed the sixteen MOOCs then available to the public on UC BerkeleyX. None of the courses reviewed were entirely accessible. For each course reviewed, it would be difficult for an individual with a hearing, vision, or manual disability to understand the content conveyed to course participants. Examples of barriers to access found across most course content included the following:

1. Some videos did not have captions. As a result, the audio content in the video was inaccessible to people with hearing disabilities.
2. Some videos were inaccessible to people with vision disabilities for several reasons. First, many videos did not provide an alternative way to access images or visual information (*e.g.*, graphs, charts, animations, or urls on slides), such as audio description, alternative text, PDF files, or Word documents. Second, videos containing text sometimes had poor color contrast, which made the text unreadable for those with low vision. Finally, information was sometimes conveyed using color alone (for instance, a chart or graph would differentiate information only by color), which is not accessible to individuals with vision disabilities.
3. Many documents were inaccessible to individuals with vision disabilities who use screen readers because the document was not formatted properly. For instance, headings were sometimes neither defined nor arranged in a logical order; page structure was not always defined, contained empty elements or was incorrectly

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<sup>2</sup>4.3 *Guidelines for Creating Accessible Content*, edX, [http://edx.readthedocs.org/projects/open-edx-building-and-running-a-course/en/named-release-birch/getting\\_started/accessibility.html](http://edx.readthedocs.org/projects/open-edx-building-and-running-a-course/en/named-release-birch/getting_started/accessibility.html) (last visited Feb. 22, 2016).

<sup>3</sup>*Electronic Accessibility*, University of California, Office of the President, <http://www.ucop.edu/electronic-accessibility/web-developers/create-accessible-pdfs.html> (last visited Feb. 22, 2016).

<sup>4</sup>*Making Your Website Accessible*, UC Berkeley Web Access, <http://webaccess.berkeley.edu/resources/tips/web-accessibility#accessible-headings> (last visited Feb. 22, 2016).

defined; some tables did not have row and column headers defined; math equations were not always defined in a comprehensible way. Many PDFs either did not have a tag structure defined or the tag structure was incorrect. Individuals with vision disabilities who use screen readers would have a difficult time understanding and navigating the content.

4. Some links were not keyboard accessible and did not indicate whether they were expandable or collapsible, so individuals with vision disabilities who use screen readers may not understand the purpose of the links and individuals with manual disabilities would not be able to use the links.
5. Websites and materials that were integrated into the course material were not fully accessible.

In January of 2016, the Department reviewed ten new and archived courses available on UC BerkeleyX. The Department observed some improvement in new and archived courses, including the addition of closed captions on some content, but in general, the new courses had most of the previously reported accessibility issues and the archived courses were still inaccessible. Specifically, the Department found that both new and archived courses are inaccessible because many have incorrect alternative text, videos without captions, undefined headings, a lack of color contrast, inaccessible PDFs, and inaccessible keyboard links.

## **ii. UC Berkeley YouTube and iTunes U**

UC Berkeley offers thousands of free audio and video files, including lectures, events, and other video content on YouTube and on iTunes U. UC Berkeley faculty are invited to participate in UC Berkeley's lecture capture program, which involves recording and publishing select UC Berkeley courses on YouTube or iTunes U. In December 2015, UC Berkeley reported that its YouTube channel had about 9,600 hours of course video and 4,200 hours of events and other video content on its YouTube channel. Its iTunes U platform had 10,400 hours of course video, 800 hours of events video, 18,000 hours of course audio, and 225 hours of events audio. About 75 percent of the same video content on YouTube is also available on iTunes U. In May 2015, UC Berkeley informed the Department that for "budget reasons," beginning in the Fall 2015, UC Berkeley would limit access to new online content on YouTube and iTunes U to enrolled UC Berkeley students taking specific courses.

UC Berkeley's Educational Technology Services (ETS) unit is available to staff and faculty to provide closed captioning for UC Berkeley's online content made available to the public on YouTube and iTunes U. Upon request, ETS works with the Disabled Students Program, UC Berkeley faculty, staff or students sponsoring the video to provide transcription and upload transcripts of audio content. ETS does not field requests from the public about the accessibility of online content.

The Department found that of the 543 videos it could identify on the YouTube channel, 75 had manually generated closed captions. Of the remainder, many had automatic captioning generated by YouTube's speech recognition technology. In March 2015, the Department selected 30 videos – 15 with manually generated closed captions, 15 without – for review. The

lectures were selected across a sample of subjects and based on popularity. Examples of barriers to access on UC Berkeley YouTube channel content included the following:

1. Automatically generated captions were inaccurate and incomplete, making the content inaccessible to individuals with hearing disabilities.
2. Approximately half the videos did not provide audio description or any other alternative format for the visual information (graphs, charts, animations, or items on the chalkboard) contained in the videos. For example, in one video lecture, a professor pointed to and talked about an image and its structure without describing the image, making it inaccessible to individuals with vision disabilities.
3. Some visual content presented in the slide presentations had low color contrast. For example, two video lectures referenced computer code on the screen that had insufficient color contrast, making it difficult for an individual with low vision to discern. Another video lecture used different colored lines on a graph, but the colors could not be differentiated by an individual with low vision.

The Department also reviewed 99 lectures from 27 of the UC Berkeley courses available on iTunes University. The Department selected a sample of courses across disciplines and based on course popularity. Examples of barriers to access found on UC Berkeley iTunesU online content included the following:

1. None of the videos reviewed had closed captions.
2. None of the videos reviewed had audio description or any other alternative format for the visual information contained in the videos.

### **c. UC Berkeley's Policy Addressing Web Accessibility**

Since September 2013, UC Berkeley has been subject to the University of California Office of the President's Information Technology Accessibility Policy (Accessibility Policy), requiring that the "University seek[] to deploy information technology that has been designed, developed, or procured to be accessible to people with disabilities, including those who use assistive technologies."<sup>5</sup> The policy further states:

The University of California is committed to supporting an information technology (IT) environment that is accessible to all, and in particular to individuals with disabilities. To this end, the University seeks to deploy information technology that has been designed, developed, or procured to be accessible to people with disabilities, including those who use assistive technologies. An accessible IT environment generally enhances usability for everyone. By supporting IT accessibility, the University helps ensure that as broad a

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<sup>5</sup> *Policy IMT -1300 Information Technology Accessibility*, University of California <http://policy.ucop.edu/doc/7000611> (last visited Feb. 22, 2016).

population as possible is able to access, benefit from, and contribute to its electronic programs and services.<sup>6</sup>

The Accessibility Policy sets forth technical standards and adopts the Web Content Accessibility Guidelines (WCAG) 2.0 at level AA success criteria.<sup>7</sup> The policy places specific requirements on UC Berkeley to:

- Adhere to the UC IT Accessibility Requirements, including the establishment of an IT Accessibility Program.
- Develop, purchase and/or acquire, to the extent feasible, hardware and software products that are accessible to people with disabilities.
- Promote awareness of this policy to all members of the University community, particularly those in roles that are responsible for creating, selecting, or maintaining electronic content and applications.

UC Berkeley's Web Accessibility Services team helps ensure that UC Berkeley websites and products are accessible to individuals with disabilities, including those who use assistive technologies such as screen readers. The Web Accessibility Services team is available to meet and consult with UC Berkeley community members to review and test websites for accessibility and to provide recommendations for improvement.<sup>8</sup>

The Accessibility Policy also notes that new development and purchases must receive higher priority over the retrofit of existing information resources. The Accessibility Policy provides for some exceptions, noting that conformance to technical standards "may not always be feasible due to the nature of the content, the purpose of the resource, the lack of accessible solutions, or an unreasonably high administrative or financial cost necessary to make the resource accessible." Nonetheless, the Accessibility Policy notes that difficulties conforming to technical standards "do not relieve the University programs or services from their IT accessibility obligations."<sup>9</sup>

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<sup>6</sup> *Policy IMT -1300 Information Technology Accessibility*, University of California, <http://policy.ucop.edu/doc/7000611> (last visited Feb. 22, 2016).

<sup>7</sup> *Policy IMT -1300 Information Technology Accessibility, Addendum A*, University of California <http://policy.ucop.edu/doc/7000611> (last visited Feb. 22, 2016). WCAG 2.0 is based on four main principles – that individuals with disabilities can (1) perceive, (2) operate, (3) understand, and (4) interact with the Web – and sets forth 12 Guidelines, each with testable Success Criteria to ensure that each Guideline is satisfied. WCAG 2.0 identifies three levels of "conformance" with the Success Criteria: Levels A, AA, and AAA. Level AA, which is the intermediate level for access, contains criteria that provide comprehensive Web accessibility and are feasible for Web content developers.

<sup>8</sup> *Web Accessibility Services*, UC Berkeley Web Access, <http://webaccess.berkeley.edu/evaluating/services> (last visited Feb. 22, 2016).

<sup>9</sup> *Policy IMT -1300 Information Technology Accessibility, Addendum A*, University of California <http://policy.ucop.edu/doc/7000611>, (last visited Feb. 22, 2016).

## II. Conclusions of Law

Discrimination on the basis of disability by public entities, including universities, is prohibited by title II of the ADA. Title II mandates that no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity. 42 U.S.C. § 12132; 28 C.F.R. § 35.130(a). The title II regulation, set out at 28 C.F.R. pt. 35, reflects and implements the statute's nondiscrimination mandate. 42 U.S.C. § 12134 (directing the attorney general to promulgate regulations).

Under title II, public universities must afford individuals with disabilities an equal opportunity to participate in or benefit from any aid, benefit, or service provided to others. *See* 28 C.F.R. § 35.130(b)(1). UC Berkeley is required to take appropriate steps to ensure that communications with individuals with disabilities are as effective as communications with others. 28 C.F.R. § 35.160(a)(1). UC Berkeley is also required to furnish appropriate auxiliary aids and services where necessary to afford qualified individuals with disabilities an equal opportunity to participate in, and enjoy the benefits of its services programs, or activities. 28 C.F.R. § 35.160(b)(1). UC Berkeley is not, however, required to take any action that it can demonstrate would result in a fundamental alteration in the nature of its service, program or activity or in undue financial and administrative burdens. 28 C.F.R. § 35.164. Finally, UC Berkeley may not utilize methods of administration that have the effect of defeating or substantially impairing accomplishment of UC Berkeley's objectives with respect to individuals with disabilities. 28 C.F.R. § 35.130(b)(3)(ii).

Based on our findings of accessibility barriers, we conclude that UC Berkeley is in violation of title II because significant portions of its online content are not provided in an accessible manner when necessary to ensure effective communication with individuals with hearing, vision or manual disabilities. In addition, UC Berkeley's administrative methods have not ensured that individuals with disabilities have an equal opportunity to use UC Berkeley's online content. While the University of California's Information Technology Accessibility Policy adopts the WCAG 2.0 AA technical standard, which provides clear parameters for ensuring online content is accessible to individuals with disabilities, UC Berkeley has not ensured compliance with its policy. For instance, we appreciate that the Berkeley Resource Center for Online Education is available to assist faculty in developing accessible courses, but UC Berkeley does not require faculty to work with the center. Similarly, Berkeley's Educational Technology Services is available to provide captions for YouTube and iTunes U content, but there is no routine practice of doing so. Moreover, while UC Berkeley has taken steps to ask faculty "to sign off on" the accessibility of UC BerkeleyX courses published through the self-service model, our review of UC Berkeley's online content demonstrated that this request has not resulted in the development of accessible courses. Thus, UC Berkeley has not met the goal of its own policy requiring it "to seek[] to deploy information technology that has been designed, developed, or procured to be accessible to people with disabilities."<sup>10,11</sup> Finally, UC Berkeley

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<sup>10</sup> *Policy IMT -1300 Information Technology Accessibility*, University of California, <http://policy.ucop.edu/doc/7000611> (last visited Feb. 22, 2016).



has not established that making its online content accessible would result in a fundamental alteration or undue administrative and financial burdens. As indicated below, the Department would prefer to resolve this matter cooperatively.

### **III. Remedial Measures**

To remedy the violations discussed above, UC Berkeley must at least take the following steps:

1. Develop a system to monitor compliance with the technical standards adopted in the University of California's Information Technology Accessibility Policy, WCAG 2.0 AA.
2. Develop and implement procedures to ensure that courses on UC BerkeleyX conform to the WCAG 2.0 AA technical standards to the extent necessary so that individuals with vision, hearing and manual disabilities can acquire the same information, engage in the same interactions, and enjoy the same services as individuals without disabilities with substantially equivalent ease of use.
3. Develop and implement procedures to ensure that UC Berkeley content on the UC Berkeley YouTube channel conforms to the WCAG 2.0 AA technical standards to the extent necessary so that individuals with vision, hearing, and manual disabilities can acquire the same information, engage in the same interactions, and enjoy the same services as individuals without disabilities with substantially equivalent ease of use.
4. Develop and implement procedures to ensure that UC Berkeley content on the UC Berkeley iTunes U platform conforms to the WCAG 2.0 AA technical standards to the extent necessary so that individuals with vision, hearing, and manual disabilities can acquire the same information, engage in the same interactions, and enjoy the same services as individuals without disabilities with substantially equivalent ease of use.
5. Develop mechanisms and implement procedures for UC Berkeley to solicit, receive and respond to feedback regarding any barriers to access to the online content on UC BerkeleyX, UC Berkeley's YouTube channels or iTunesU platform, as well as feedback on how to improve the accessibility of that content.
6. Pay compensatory damages to aggrieved individuals for injuries caused by UC Berkeley's failure to comply with title II.

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<sup>11</sup> This letter addresses only the issues investigated as part of this investigation and should not be construed to address any other title II issues not investigated at this time.

#### IV. Conclusion

We hope to work together with you to resolve our concerns regarding the accessibility of UC Berkeley's online content. The Department prefers to resolve this matter cooperatively through a court-enforceable consent decree that brings UC Berkeley into compliance with the ADA. 28 C.F.R § 35.173. In the event that we are unable to reach such a resolution, the Attorney General may initiate a lawsuit pursuant to the ADA. 42 U.S.C. § 12133; 28 C.F.R § 35.174. Please contact Charlotte Lanvers at (202) 305-0706 or [charlotte.lanvers@usdoj.gov](mailto:charlotte.lanvers@usdoj.gov) or Elisabeth Oppenheimer at (202) 616-3653 or [elisabeth.oppenheimer@usdoj.gov](mailto:elisabeth.oppenheimer@usdoj.gov) within two weeks of the date of this letter if you are willing to resolve this matter voluntarily or if you have any questions regarding this letter.<sup>12</sup>

Sincerely,



Rebecca B. Bond  
Chief  
Disability Rights Section

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<sup>12</sup> Please note that this Letter of Findings is a public document and will be posted on the Civil Rights Division's website.