



June 30, 2016

By Hand Delivery

Honorable Chief Justice Tani Cantil-Sakauye
Honorable Associate Justices
Supreme Court of California
350 McAllister Street
San Francisco, CA 94102

RECEIVED

JUN 30 2016

Re: *Campaign for Quality Education v. State of California*
Case No. S234901
Amicus Curiae Letter of Mozilla in Support of Petition for Review

CLERK SUPREME COURT

Dear Honorable Justices:

Pursuant to Rule 8.500(g) of the California Rules of Court, the Mozilla Foundation and Mozilla Corporation (collectively “Mozilla”) submit this letter as *amicus curiae* urging this Court to grant review of the above-entitled case. We are submitting this letter because we are concerned that public school education in California may not expose students to the technologies and skills needed to be meaningful participants in today’s online world.

Interest of *Amicus Curiae* Mozilla

Mozilla is a mission-driven organization and global community of technologists, thinkers and builders. Our flagship product is Firefox, which is an openly developed and open source web browser. We develop Firefox in this way so that anyone can view, modify, share and otherwise use the Firefox source code. Firefox is used by hundreds of millions of people worldwide to discover, experience, and connect to the Web. Additionally, tens of thousands of volunteers from across the world contribute to improve and adapt Firefox to their local communities and engage in other Mozilla projects to build a better Web.¹

Mozilla’s mission is to ensure the Internet is a global public resource, open and accessible to all. A critical part of this mission is to ensure that we empower Internet users to be meaningful participants online. At the core of this empowerment is education, the basic building blocks of which are familiarity with the technologies and interactions that make up the World Wide Web. We’ve grouped these concepts into the term “Web literacy.”

To improve Web literacy, Mozilla and its volunteers have held hundreds of events around the world to inspire students to engage with technology using tools like Thimble² and X-ray Goggles³ and through programs like Hive Learning Networks⁴ and Maker Parties.⁵ These

¹ *Volunteer with Mozilla!*, MOZILLA.ORG, (Jun. 27, 2016), <https://www.mozilla.org/en-US/contribute>.

² *Thimble*, MOZILLA.ORG, (Jun. 27, 2016), <https://thimble.mozilla.org> (Thimble is an HTML editor and preview pane that allows users to create new webpages or alter existing ones).

³ *Goggles*, MOZILLA.ORG, (Jun. 27, 2016), <https://goggles.mozilla.org> (Goggles is a browser plugin that can be used to see the underlying HyperText Markup Language (HTML) and Cascading Style Sheets (CSS) of the web page being visited. It can be used to change the code of a page and publish another version).

educational tools and programs bring educators, organizations, and enthusiasts together for hands-on teaching and learning about web building and digital citizenship. For example, participants in these programs have learned to make webpages and mobile apps, tinkered with 3D printers, created robots, experienced virtual reality, and engaged in critical thinking on issues such as net neutrality and web privacy.

Reasons Why Review Should be Granted

Petitioners' complaints paint an alarming picture of California public schools, which are failing to adequately prepare students. School computer and technology labs have been shut down; courses on technology, robotics, science, math and engineering have been eliminated; and online programs to supplement classroom education have been cut. For example:

- As a result of low spending levels, California ranked 49th in the country for access to computers in 2008. 63,000 more computers would have been required to reach the national average for staffing ratios.⁶
- Media centers and computer labs are often shut down for lack of funding.⁷ Even where computer labs have been donated, schools can only afford to staff them a few days a week.⁸
- Computers, computer technicians, and elective programs are often eliminated.⁹
- Although education technology has become increasingly central to delivering appropriate content to students, California has no consistent policies or funding for education technology, nor any provisions for ongoing and annual expenditures related to the maintenance of technology.¹⁰
- School districts suffer from an inadequate data system to track student enrollment, program participation, and achievement data to evaluate progress and program quality.¹¹

The Importance of Web Literacy

Just as with reading literacy, Web literacy is something that can be learned and improved over time.¹² Mozilla has worked with academics, teachers, students, and community members

⁴ *About Hive Learning Networks*, HIVELEARNINGNETWORKS.ORG, (JUN. 27, 2016), <https://hivelearningnetworks.org/about> (Hive Learning Networks prepare youth to thrive in school, work, and civic life through connected learning experiences that teach digital literacy skills essential for young people to discover and shape their world).

⁵ *Events*, MOZILLA.ORG, (JUN. 27, 2016), <https://learning.mozilla.org/events>.

⁶ See Complaint For Declaratory and Injunctive Relief at pp. 8, 24-25, *Robles-Wong et al. v. State of Cal.*, No. RG10515768 (Cal. Super. May 20, 2010) (hereinafter "*Robles-Wong Compl.*").

⁷ *Id.* at p. 39; Second Amended Complaint for Declaratory and Injunctive Relief at pp. 41, 46, *Campaign for Quality Education, et al. v. State of Cal.*, No. RG10524770 (Cal. Super. July 12, 2010) (hereinafter "*CQE Compl.*").

⁸ *CQE Compl.* at p. 49.

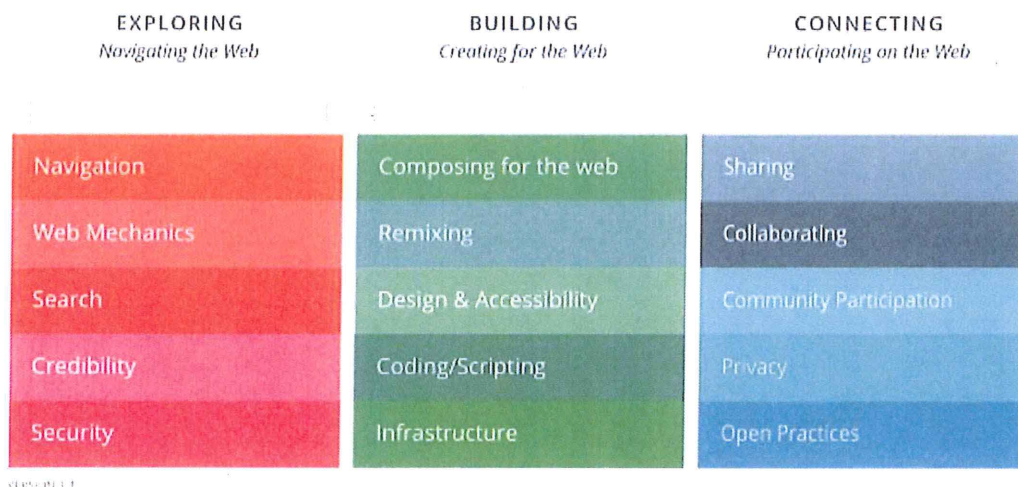
⁹ See *Robles-Wong Compl.* at pp. 46-47; *CQE Compl.*, at pp. 45, 46.

¹⁰ *Robles-Wong Compl.* at pp. 36, 51-52.

¹¹ *CQE Compl.*, at pp. 42-43.

from around the world to develop a “Web Literacy Map”¹³ (shown below) to define the core skills and competencies needed to meaningfully participate online.

Web Literacy Map



Technology is so pervasive in our society that schools should play an important role in helping students become Web literate. Many students use mobile phones, tablets, computers, and other smart devices. They go online to consume video, music, and news, and to communicate with others via social media, email, and chat. But merely using technology doesn't convert people into meaningful participants online. Meaningful online participation requires students to understand how Web technologies work, how their information is used online and by whom, what their online choices are, and how to contribute to making new and improved Web technologies. These skills provide value for life.¹⁴

Using the three strands of the above Web Literacy Map, teachers can help students become Web literate by:

¹² J. Gregory McVerry, Doug Belshaw & W. Ian O'Byrne, *Guiding Students as They Explore, Build, and Connect Online*, *Journal of Adolescent & Adult Literacy*, Vol. 58, Iss. 8, May 2015, at pp. 632-635 (discussing the Mozilla Web Literacy Map).

¹³ *Web Literacy Map, version 1.1*, MOZILLA WIKI, (May 25, 2015), <https://wiki.mozilla.org/Webmaker/WebLiteracyMap>.

¹⁴ Mark Surman, Mozilla Foundation Executive Director, *Why Web Literacy Matters, Too*, MEDIUM.COM, (Jun. 16, 2015), <https://medium.com/bright/why-web-literacy-matters-too-eedfd902ab07#.9r6lupys5>.

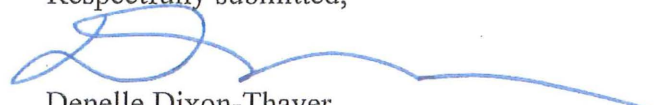
- *Exploring* – locate information and resources more effectively, critically evaluate information found online, understand the components of the web ecosystem, and take security measures to protect personal information and systems.¹⁵
- *Building* – publish material to the Web, cite and reference original content when creating derivative content, improve the experience of interacting with technology, create content accessible to hearing and visually impaired individuals and adaptable to different languages.¹⁶
- *Connecting* – share and collaborate with others, respectfully engage in web communities and forums, examine the consequences of sharing personal information online, and distinguish between open and closed licensing practices.¹⁷

Teaching Web literacy empowers students' online experiences and prepares them to be engaged citizens, entrepreneurs, and innovators. Web literate students are more likely to succeed in higher education and obtain better employment opportunities.¹⁸ Without these skills, students are more likely to be disadvantaged in today's global, highly-competitive, service-based market.¹⁹

Conclusion

Accordingly, this Court should grant review and decide this case to ensure that the California Constitution's education mandate is appropriately applied. Public school students deserve meaningful opportunities to shape their future.

Respectfully submitted,



Denelle Dixon-Thayer
Chief Legal and Business Officer
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cc: Service List

¹⁵ *Exploring*, MOZILLA.ORG, (Apr. 8, 2015), <https://wiki.mozilla.org/Webmaker/WebLiteracyMap/Exploring>.

¹⁶ *Building*, MOZILLA.ORG, (Apr. 8, 2015), <https://wiki.mozilla.org/Webmaker/WebLiteracyMap/Building>.

¹⁷ *Connecting*, MOZILLA.ORG, (Apr. 8, 2015), <https://wiki.mozilla.org/Webmaker/WebLiteracyMap/Connecting>.

¹⁸ Even federal law defines "workforce preparation activities" to include digital literacy skills. *See* 29 U.S.C. § 3272 (17) (2015).

¹⁹ Mitchell Baker, Mozilla Executive Chairwoman, Address to the Bay Area Council 2016 Outlook Conference in San Francisco, (May 17, 2016), available at <https://air.mozilla.org/oc16-mitchell-baker-mozilla> (discussing the need for individuals and businesses to "digitize early" to be competitive in our increasingly digitized world); *see also* Shahar Markovitch and Paul Willmott, *Accelerating the Digitization of Business Processes*, MCKINSEY & COMPANY (May 2014), available at <http://www.mckinsey.com/business-functions/business-technology/our-insights/accelerating-the-digitization-of-business-processes>.

PROOF OF SERVICE

I, Urmika Shah, declare that I am a resident of California, over the age of 18, and not a party to this case. I am employed by Mozilla, which is headquartered at 331 E. Evelyn Ave. Mountain View, CA 94041. On this date, June 30, 2016, I caused to be served the following

Amicus Curiae Letter of Mozilla in Support of Petition
Campaign for Quality Education v. State of California, Case No. S234901

by first-class mail to all parties listed in the Service List below by placing true copies thereof in separate, sealed envelopes.

I declare under penalty of perjury that the foregoing is true and correct and that this document was executed on June 30, 2016 in San Francisco, California.



Urmika Shah
Product & Data Counsel

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