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13 **UNITED STATES DISTRICT COURT**
 14 **NORTHERN DISTRICT OF CALIFORNIA**
 15 **SAN FRANCISCO DIVISION**

17 EXPRESS MOBILE, INC.,
 18 *Plaintiff,*
 19 v.
 20 MICROSOFT CORPORATION and
 21 LINKEDIN CORPORATION,
 22 *Defendants.*

Case No. 3:20-cv-06152-RS
**FIRST AMENDED COMPLAINT FOR
 PATENT INFRINGEMENT**
DEMAND FOR JURY TRIAL

1 **COMPLAINT FOR PATENT INFRINGEMENT**

2 Plaintiff Express Mobile, Inc. (“Express Mobile” or “Plaintiff”), by its attorneys, demands
3 a trial by jury on all issues so triable and for its First Amended Complaint against Microsoft
4 Corporation (“Microsoft”) and LinkedIn Corporation (“LinkedIn”) (collectively “Defendants”)
5 alleges the following:

6 **NATURE OF THE ACTION**

7 1. This action arises under 35 U.S.C. § 271 for Microsoft’s and LinkedIn’s
8 infringement of Express Mobile’s United States Patent Nos. 6,546,397 (“the ’397 patent”),
9 7,594,168 (“the ’168 patent”), 9,928,044 (“the ’044 patent”), 9,471,287 (“the ’287 patent”) and
10 9,063,755 (“the ’755 patent”).

11 **THE PARTIES**

12 2. Plaintiff Express Mobile, Inc. is an inventor-owned corporation organized under
13 the laws of the State of Delaware with a place of business at 38 Washington Street, Novato,
14 California 94947.

15 3. Upon information and belief, Defendant Microsoft is a corporation organized and
16 existing under the laws of the State of Washington, with the following places of business in this
17 District: 555 California Street, Suite 200, San Francisco, CA 94104; 1288 Pear Avenue,
18 Mountain View, CA 94043 and 744 N. Mathilda Avenue, Mountain View, CA 94043. Microsoft
19 can be served with process by serving its registered agent for service of process in California:
20 Corporation Service Company which Will Do Business in California as CSC - Lawyers
21 Incorporating Service, 2710 Gateway Oaks Dr., Ste. 150, Sacramento, CA 95833.

22 4. Microsoft is an American multinational corporation that develops, manufactures,
23 licenses, supports, and sells computer software, consumer electronics, personal computers, and
24 related services.

25 5. Upon information and belief, Defendant LinkedIn is a corporation organized and
26 existing under the laws of the Delaware, with the following places of business in this District: 222
27 2nd Street, San Francisco, California 94105 and 1000 W Maude Avenue, Mountain View,
28 California 94043. LinkedIn can be served with process by serving its registered agent for service

1 of process in California: CSC – Lawyers Incorporating Service, 2710 Gateway Oaks Drive, Suite
2 150N, Sacramento, California 95833.

3 6. LinkedIn is an American business and employment-oriented professional
4 networking online service that operates via websites and mobile apps.

5 **JURISDICTION AND VENUE**

6 7. This Court has jurisdiction over the subject matter of this action pursuant to 28
7 U.S.C. §§ 1331 and 1338(a).

8 8. Jurisdiction and venue for this action are proper in the Northern District of
9 California.

10 9. This Court has personal jurisdiction over Microsoft because Microsoft has
11 purposefully availed itself of the rights and benefits of the laws of this State and this Judicial
12 District. Upon information and belief, Microsoft resides in the Northern District of California by
13 maintaining regular and established places of business at 555 California Street, Suite 200, San
14 Francisco, CA 94104; 1288 Pear Avenue, Mountain View, CA 94043 and 744 N. Mathilda
15 Avenue, Mountain View, CA 94043.

16 10. This Court also has personal jurisdiction over Microsoft because Microsoft has
17 done and is doing substantial business in this Judicial District, both generally and, upon
18 information and belief, with respect to the allegations in this First Amended Complaint,
19 including Microsoft’s one or more acts of infringement in this Judicial District.

20 11. This Court has personal jurisdiction over LinkedIn because LinkedIn has
21 purposefully availed itself of the rights and benefits of the laws of this State and this Judicial
22 District. Upon information and belief, LinkedIn resides in the Northern District of California by
23 maintaining regular and established places of business at 222 2nd Street, San Francisco,
24 California, 94105 and 1000 W Maude Avenue, Mountain View, California 94043.

25 12. This Court also has personal jurisdiction over LinkedIn because LinkedIn has
26 done and is doing substantial business in this Judicial District, both generally and, upon
27 information and belief, with respect to the allegations in this First Amended Complaint,
28 including LinkedIn’s one or more acts of infringement in this Judicial District.

1 18. The claims of the '397 patent recite inventions that are not merely the routine or
2 conventional use of website creation systems and methods. Instead, the inventions teach a
3 browser-based website creation system and method in which the user-selected settings
4 representing website elements are stored in a database, and in which said stored information is
5 retrieved to generate said website.

6 19. The technology claimed in the '397 patent does not preempt all ways of using
7 website or web page authoring tools nor any other well-known prior art technology.

8 20. Accordingly, each claim of the '397 patent recites a combination of elements
9 sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible
10 concept.

11 21. Plaintiff is the lawful owner of all rights, title, and interest in United States Patent
12 No. 7,594,168 titled "Browser Based Web Site Generation Tool and Run Time Engine," including
13 the right to sue and to recover for infringement thereof. The '168 patent was duly and legally
14 issued on September 22, 2009, naming Steven H. Rempell as the inventor. A true and correct copy
15 of the '168 patent is attached as Exhibit B.

16 22. The inventions of the '168 patent solve technical problems related to website
17 creation and generation. For example, the inventions enable the creation of websites through
18 browser-based build tools and a user interface. The inventions greatly improve the productivity
19 of the designer utilizing an innovative implementation for styles. These features are implemented
20 utilizing computer technology.

21 23. The claims of the '168 patent do not merely recite the performance of some pre-
22 Internet business practice on the Internet. Instead, the claims of the '168 patent recite inventive
23 concepts that are rooted in computerized website creation technology and overcome problems
24 specifically arising in the realm of computerized website creation technologies.

25 24. The claims of the '168 patent recite inventions that are not merely the routine or
26 conventional use of website creation systems and methods. Instead, the inventions teach a
27 browser-based website creation system including a server comprising a build engine configured to
28 create and apply styles to, for example, a website with web pages comprised of objects.

1 25. The technology claimed in the '168 patent does not preempt all ways of using
2 website or webpage authoring tools nor any other well-known or prior art technology.

3 26. Accordingly, each claim of the '168 patent recites a combination of elements
4 sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible
5 concept.

6 27. In *Express Mobile v. KTree Computer Solutions*, a case filed in the Eastern District
7 of Texas, the defendant, KTree Computer Solutions, brought a Motion for Judgment on the
8 Pleadings asserting that the '397 patent and the '168 patent is invalid as claiming abstract subject
9 matter under 35 U.S.C. § 101. (C.A. 2:17-00128; Dkt. 9, 17, 22-27). The briefing associated with
10 the motion is incorporated by reference into this Complaint.

11 28. After considering the respective pleadings, Magistrate Judge Payne recommended
12 denial of KTree's motion, without prejudice, holding that "the claims appear to address a problem
13 particular to the internet: dynamically generating websites and displaying web pages based on
14 stored user-selected settings" and further stating "the asserted claims do not bear all of the
15 hallmarks of claims that have been invalidated on the pleadings by other courts in the past. For
16 example, the claims are not merely do-it-on-a-computer claims." (Dkt. 29, attached as Exhibit C.)
17 No objection was filed to the Magistrate Judge's report and recommendation and the decision
18 therefore became final.

19 29. In *Express Mobile v. Pantheon Systems, Inc.*, a case filed in the Northern District
20 of California, the defendant, Pantheon Systems, Inc., brought a Motion to Dismiss Plaintiff's First
21 Amended Complaint asserting that the '397 patent and the '168 patent were directed to the abstract
22 idea of creating and displaying webpages based upon information from a user with no further
23 inventive concept and purportedly ineligible for patenting under 35 U.S.C. § 101. (Case No. 3:18-
24 CV-04688-RS; Dkt. 26, 32 and 34). The briefing associated with the motion is incorporated by
25 reference into this Complaint.

26 30. In *Express Mobile v. Code and Theory LLC*, a case filed in the Northern District of
27 California, the defendant, Code and Theory LLC, brought a Motion to Dismiss Plaintiff's
28 Complaint asserting that the '397 patent and the '168 patent are not subject matter eligible under

1 35 U.S.C. § 101 as a matter of law. (Case No. 3:18-CV-04679-RS; Dkt. 35, 40 and 41). The
2 briefing associated with the motion is incorporated by reference into this Complaint.

3 31. After a hearing and a consideration of the respective pleadings, Hon. Richard
4 Seeborg denied both motions holding that:

- 5 • “The patents here are directed at a purportedly revolutionary technological solution
6 to a technological problem—how to create webpages for the internet in a manner
7 that permits ‘what you see is what you get’ editing, and a number of other alleged
8 improvements over the then-existing methodologies.” *Id.* at 5.
- 9 • The claims of the ‘397 and ‘168 patents are “directed to a specific improvement to
10 the way computers operate,” and “it simply cannot be said on the present record
11 that the claims are drawn so broadly as to be divorced from the potentially patent-
12 eligible purported technological improvements described in the specification.” *Id.*
13 at 5-6. (Case No. 3:18-CV-04679-RS; Dkt.45; Case No. 3:18-CV-04688-RS
14 Dkt.40; attached as Exhibit D.)

15 32. In Case Nos. 1:18-CV-01173-RGA and 1:18-CV-01175-RGA, infringement
16 actions filed by Plaintiff in the District of Delaware, the respective defendants in those actions,
17 Dreamhost LLC and Hostway Services, Inc., brought Motions to Dismiss claims of the ‘397
18 and ‘168 patents on the basis of invalidity under 35 U.S.C. § 101. (Case No. 1:18-CV-01173-
19 RGA D.I. 14, D.I. 18-21 and 24 Case No. 1:18-CV-01175-RGA D.I. 17-19 and 23). The briefing
20 associated with the motion is incorporated by reference into this Complaint.

21 33. After consideration of the respective pleadings, Judge Andrews denied both
22 motions in a joint order, pointing to factual allegations of inventiveness identified by the Plaintiff,
23 and an expert declaration explaining inventiveness of the claims, noting that such factual issues
24 preclude a finding of invalidity on a motion to dismiss. (Case No. 1:18-CV-01173-RGA D.I. 43;
25 Case No. 1:18-CV-01175-RGA D.I. 42; attached as Exhibit E.)

26 34. Plaintiff is the lawful owner of all rights, title, and interest in United States Patent
27 No. 9,928,044 titled “Systems and Methods for Programming Mobile Devices,” including the right
28 to sue and to recover for infringement thereof. The ‘044 patent was duly and legally issued on

1 March 27, 2018, naming Steven H. Rempell, David Chrobak and Ken Brown as the inventors. A
2 true and correct copy of the '044 patent is attached as Exhibit F.

3 35. The inventions of the '044 patent solve technical problems associated with methods
4 and systems for displaying content on displays of devices by providing more efficient ways of
5 generating, storing and retrieving code for displaying content, for example, dynamic content,
6 uniformly across different kinds of devices. For example, the inventions of the '044 patent allow
7 a data-efficient and flexible association between a symbolic name with a User Interface ("UI")
8 object (e.g., a UI object for a widget) corresponding to a web component of a web service, that is
9 manually or automatically selected. The symbolic name has a data format type corresponding to
10 a subclass of UI objects that support the data format type of the symbolic name and is only
11 available to UI objects that support the data format of the symbolic name. Information
12 representative of the defined UI object can be stored in a database and subsequently retrieved from
13 the database to build an application consisting of at least a portion of the database using a player,
14 which uses the information to generate one or more web pages for display across different kinds
15 of devices (e.g., PC, mobile or tablet; or different browsers, operating systems and applications,
16 including for example both native and browser-based applications.)

17 36. The claims of the '044 patent do not merely recite the performance of some pre-
18 Internet business practice on the Internet. Instead, the claims of the '044 patent recite inventive
19 concepts that are rooted in the computerized, data-efficient definition, selection, storage and
20 generation of user defined object attributes (e.g., a UI object for a widget) on displays for different
21 types of devices, such as PC, mobile or tablet or different browsers, and applications. Such features
22 are specifically grounded in, and overcome problems with data efficiency and flexibility
23 specifically arising in, the realm of computerized content generation and display technologies, and
24 are not well-understood, routine and conventional elements.

25 37. For example, the claimed inventions of the '044 patent recite innovative, technical
26 improvements that select and associate symbolic names with defined UI objects (e.g., UI objects
27 for a widget) corresponding to web components of web services based on, for example, data format
28 type, storing information representative of such settings in a database, and building applications,

1 which together with players, generate uniform, data-efficient content, such as dynamic content, for
2 display across different types of devices.

3 38. The technology claimed in the '044 patent does not preempt all ways for the
4 computerized generation of code for a display of a device nor any other well-known or prior art
5 technology. For example, the specific, innovative technical improvements do not preempt well-
6 known methods of generating code for a display of a device by programming in HTML or
7 JavaScript code.

8 39. Accordingly, each claim of the '044 patent thus recites a combination of elements
9 sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible
10 concept.

11 40. Plaintiff is the lawful owner of all rights, title, and interest in United States Patent
12 No. 9,471,287 titled "Systems and Methods for Integrating Widgets on Mobile Devices," including
13 the right to sue and to recover for infringement thereof. The '287 patent was duly and legally
14 issued on October 18, 2016, naming Steven H. Rempell, David Chrobak and Ken Brown as the
15 inventors. A true and correct copy of the '287 patent is attached as Exhibit G.

16 41. The inventions of the '287 patent solve technical problems associated with methods
17 and systems for displaying content on displays of devices by providing more efficient ways of
18 generating code for uniformly displaying content, for example dynamic content, across different
19 kinds of devices. For example, the inventions of the '287 patent allow a data-efficient and flexible
20 association between a symbolic name and a UI object (e.g., a UI object for a widget) corresponding
21 to a web component of a web service, that is defined for presentation on a display of a device. The
22 defined UI object can be selected by a user of an authoring tool or automatically selected by a
23 system based on a web component selected by the user. Further, the symbolic name has a data
24 format type corresponding to a subclass of UI objects that support the data format type of the
25 symbolic name. A device-independent application including the symbolic name is then produced
26 and provided to the device together with a device-platform-dependent player. Such operations
27 provide a user-friendly platform allowing the UI object to be efficiently defined and uniformly
28 displayed across different kinds of devices (e.g., PC, mobile or tablet; or different browsers,

1 operating systems, and applications, including for example both native and browser-based
2 applications).

3 42. The claims of the '287 patent do not recite merely the performance of a known
4 business practice on the Internet. Instead, the claims of the '287 patent recite inventive concepts
5 grounded in the computerized, data-efficient definition and generation of object attributes (e.g., a
6 UI object for a widget) on displays for different types of devices, such as PC, tablet, or mobile
7 devices, or different browsers and applications. Such features are specifically grounded in, and
8 overcome problems with data efficiency and flexibility specifically arising in, the realm of
9 computerized content generation and display technologies, and are not well-understood, routine,
10 and conventional elements.

11 43. For example, the claimed inventions of the '287 patent recite innovative, technical
12 improvements that associate symbolic names with UI objects (e.g., UI objects for a widget)
13 corresponding to web components of web services that are manually or automatically selected,
14 and defined based on, for example, data format type, and produce device-independent applications
15 including those symbolic names, together with device-dependent players, to provide uniform, data-
16 efficient server-based content display across different types of devices.

17 44. The technology claimed in the '287 patent does not preempt all ways for the
18 computerized generation of code for a display of a device nor any other well-known or prior art
19 technology. For example, the specific, innovative technical improvements do not preempt well-
20 known methods of generating code for a display of a device by programming in HTML or
21 JavaScript code.

22 45. Each claim of the '287 patent thus recites a combination of elements sufficient to
23 ensure that the claim amounts to significantly more than a patent on an ineligible concept.

24 46. Accordingly, each claim of the '287 patent recites a combination of elements
25 sufficient to ensure that the claim amounts to significantly more than a patent on an ineligible
26 concept.

27 47. Plaintiff is the lawful owner of all rights, title, and interest in United States Patent
28 No. 9,063,755 titled "Systems and Methods for Presenting Information on Mobile Devices,"

1 including the right to sue and to recover for infringement thereof. The '755 patent was duly and
2 legally issued on June 23, 2015, naming Steven H. Rempell, David Chrobak and Ken Brown as
3 the inventors. A true and correct copy of the '755 patent is attached as Exhibit H.

4 48. The inventions of the '755 patent utilize inventive concepts to solve technical
5 problems associated with methods and systems for displaying content on displays of devices,
6 providing more efficient ways of generating code for uniformly displaying content, for example
7 dynamic content, across different kinds of devices. For example, the inventions of the '755 patent
8 allow a data-efficient and flexible association between a symbolic name and a UI object (e.g., a
9 UI object for a widget), corresponding to a web component of a web service, that is defined for
10 presentation on a display of a device. A device-independent application including the symbolic
11 name is produced and provided to the device, together with a device-platform-dependent player.

12 49. The claimed inventions of the '755 patent allow the UI object to be efficiently
13 displayed across different kinds of devices (e.g., PC, mobile or tablet; or different browsers,
14 operating systems, and applications, including both native and browser-based applications), as
15 opposed to, for example, programming directly in HTML or JavaScript code. In turn, a user can
16 enter an input value to the UI object, and obtain an output value based on a web service associated
17 with the UI object, the input value and output value also being communicated through symbolic
18 names to provide an additional level of efficiency.

19 50. The claims of the '755 patent do not recite merely the performance of a known
20 business practice on the Internet. Instead, the claims of the '755 patent recite inventive concepts
21 concerning the computerized, data-efficient generation of server-based content (e.g., a UI object
22 for a widget) on displays for different types of devices, such as PC, tablet, or mobile devices, or
23 different browsers and applications. For example, the claims of the '755 utilize symbolic name
24 associations and provide device-independent applications including those symbolic names,
25 together with device-platform-dependent players, to devices. Further, input values and output
26 values for the defined content are also communicated as symbolic names. Such features are
27 specifically grounded in, and overcome problems with data efficiency and flexibility specifically
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1 arising in, the realm of computerized content generation and display technologies, and are not
2 well-understood, routine, and conventional elements.

3 51. For example, the claimed inventions of the '755 patent recite innovative, technical
4 improvements that associate symbolic names with defined UI objects (e.g., UI objects for a widget)
5 corresponding to web components of web services, and produce device-independent applications
6 including those symbolic names, together with device-platform-dependent players, to provide
7 uniform, data-efficient content, such as dynamic content, for display across different types of
8 devices.

9 52. The technology claimed in the '755 patent does not preempt all ways for the
10 computerized generation of code for a display of a device, nor any other well-known or prior art
11 technology. For example, the specific, innovative technical improvements claimed in the '755
12 patent do not preempt well-known methods of generating code for a display of a device by
13 programming in HTML or JavaScript code.

14 53. Each claim of the '755 patent thus recites a combination of elements sufficient to
15 ensure that the claim amounts to significantly more than a patent on an ineligible concept.
16 Accordingly, each claim of the '755 patent recites a combination of elements sufficient to ensure
17 that the claim amounts to significantly more than a patent on an ineligible concept.

18 **BACKGROUND**

19 54. Plaintiff Express Mobile is a leader in the business of developing mobile app and
20 web site design and creation platforms, and has intellectual property including U.S. patents
21 relating to certain tools useful in the field. Express Mobile is managed by individuals with
22 decades of technology and business experience. The Chairman of the Board and CTO of
23 Express Mobile, Steve Rempell, is the inventor of Express Mobile's patent portfolio. Mr.
24 Rempell has over 50 years of experience in technology companies, with much of that work
25 focused on web-based technologies and applications.

26 55. Defendant Microsoft is a well-known American multinational company that that
27 develops, manufactures, licenses, supports, and sells computer software, consumer electronics,
28

1 personal computers, and related services. Microsoft generates billions of dollars of revenue per
2 year.

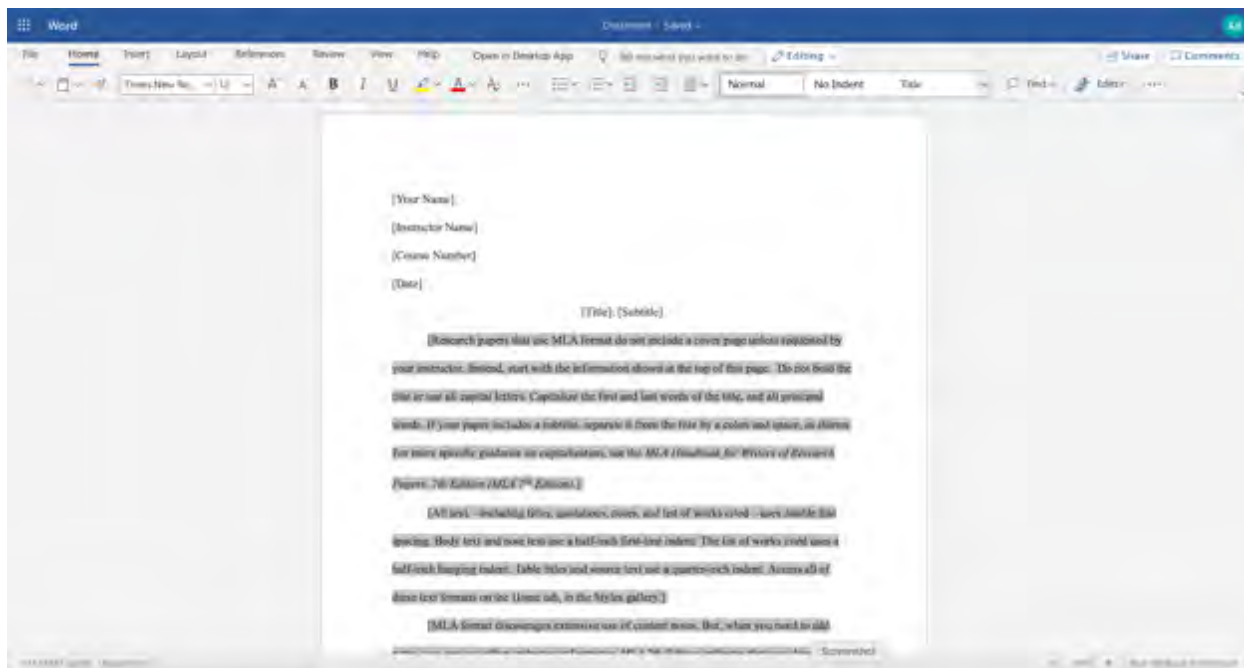
3 56. Defendant LinkedIn is an American business and employment-oriented
4 professional networking online service that operates via websites and mobile apps.

5 **COUNT I - INFRINGEMENT OF U.S. PATENT NO. 6,546,397**

6 57. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 56
7 above.

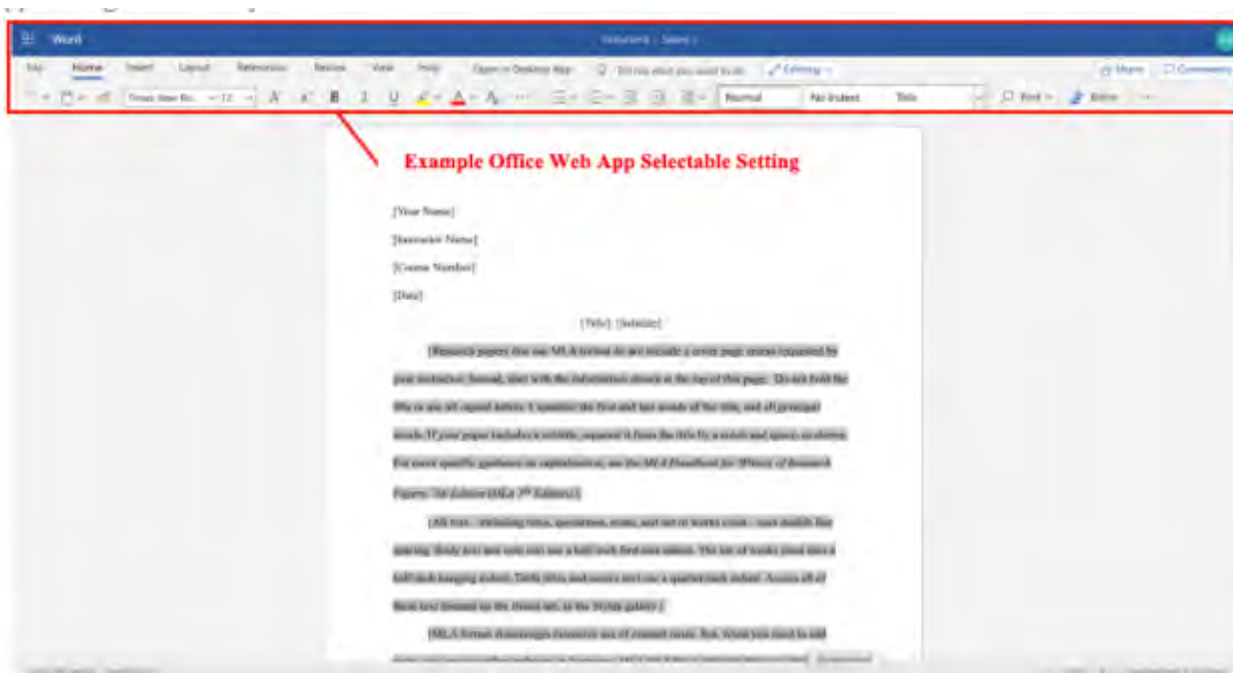
8 58. Microsoft has performed a method to allow users to produce Internet websites
9 which infringed, either literally or under the doctrine of equivalents, one or more claims of
10 the '397 patent in violation of 35 U.S.C. § 271(a).

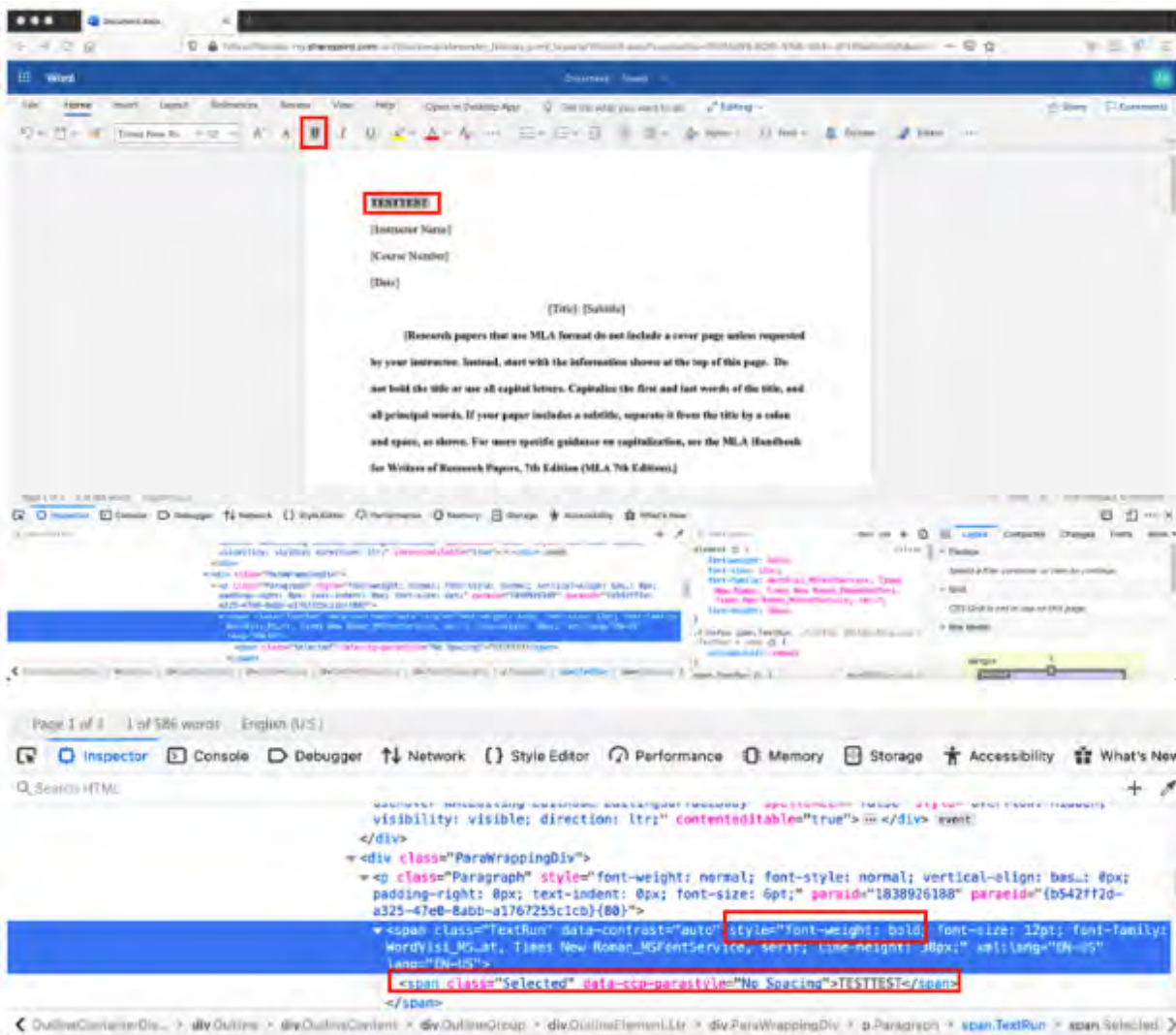
11 59. Upon information and belief, Microsoft directly infringed at least claim 1 of
12 the '397 patent through the browser-based version of Microsoft Office Web App that practiced a
13 method to allow users to produce Internet websites on and for computers having a browser and a
14 virtual machine capable of generating displays (the "Accused Instrumentality").



26 60. The Accused Instrumentality presented viewable menus having a user selectable
27 panel of settings describing elements on a website (e.g., each document or collection of
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1 documents created is a website accessible via the web at an assigned address). These panels of
2 settings were presented through a browser on a computer adapted to accept a multitude of
3 selectable settings in said panels as inputs therefrom, and these user selectable settings in said
4 panels correspond to commands to a Webkit or Trident Engine virtual machine. For example, in
5 the below menu in the Accused Instrumentality, a menu of text formatting options for an element
6 are presented. Changing the “Bold” option immediately generated a command to the virtual
7 machine triggering an update.



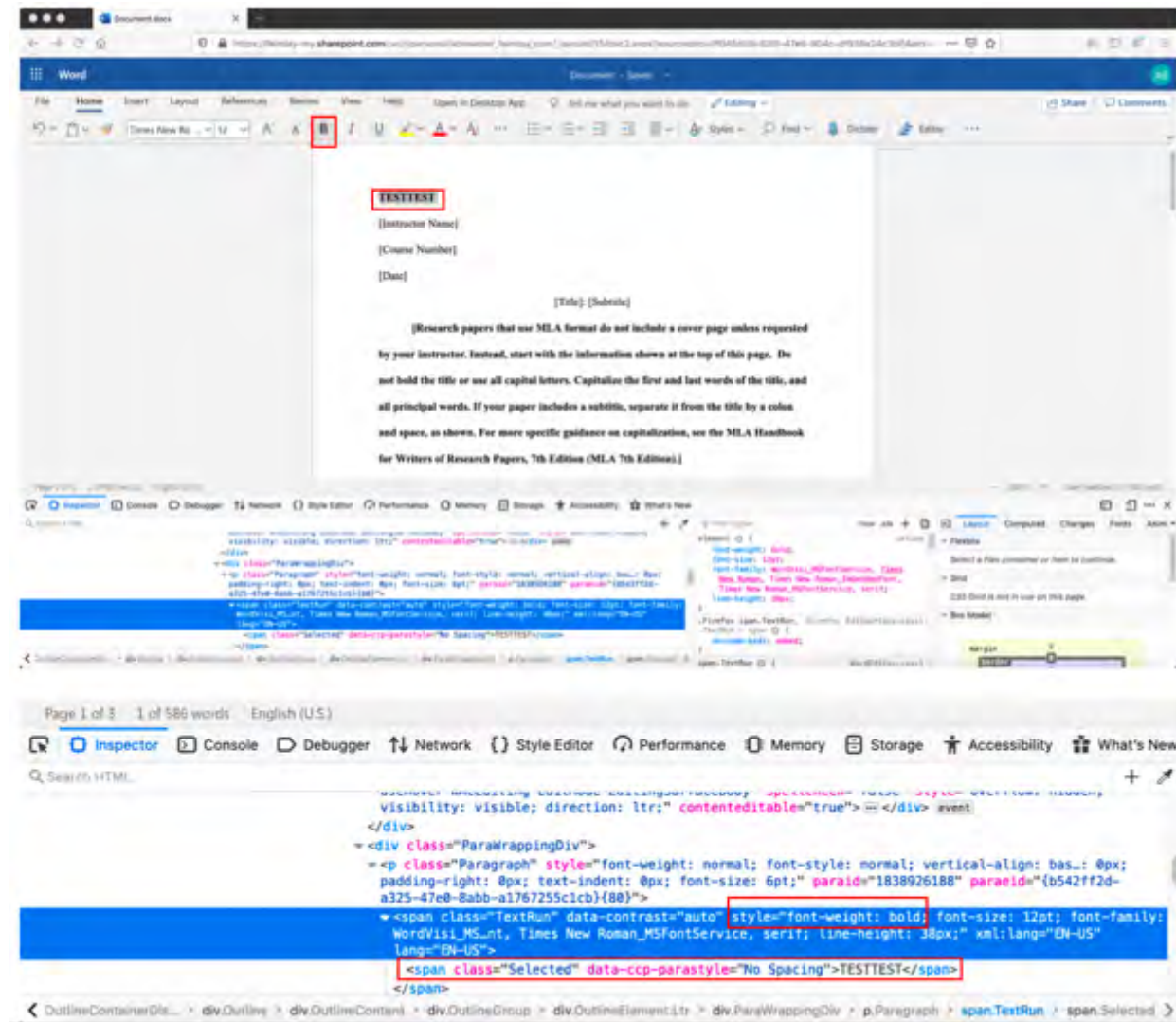


61. The Accused Instrumentality generated or updated the display immediately upon the selection of a user selectable setting. In the example above, as soon as the text was selected and the user selectable “Bold” setting was chosen, the text was immediately updated to a bold weight.

62. The Accused Instrumentality stored information representative of the one or more user selected settings in a database as shown above, and used information representative of the settings relevant portions of the website. For example, the exemplary settings such as font weight and style are were stored and subsequently retrieved from the database in order to generate the relevant portions of the website.

63. The Accused Instrumentality built one or more web pages to generate the website from at least a portion of said database and at least one run time file, where the at least one run

1 time file utilized information stored in said database to generate virtual machine commands for
 2 the display of at least a portion of said one or more web pages. For example, the Accused
 3 Instrumentality had runtime .js files, including at least WordEditor.js, which comprised the
 4 Office Web App environment and editor (here, the Microsoft Word Office Web App). The
 5 Accused Instrumentality then used these runtime files to generate Webkit or Trident Engine
 6 Virtual Machine commands which generated a set of web pages for display that would have been
 7 visible on the device's browser.



1 66. Upon information and belief, since the date of its receipt of notice, Microsoft's
2 infringement of the '397 patent was willful and intentional under the standard announced in *Halo*
3 *Elects., Inc. v. Pulse Elects., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). From at least July 27,
4 2019, Microsoft willfully infringed the '397 patent by refusing to take a license and continuing to
5 make, use, test, sell, license, and/or offer for sale/license the '397 Accused Instrumentality.
6 Microsoft was aware that it infringed the '397 patent from at least July 27, 2019 and instead of
7 taking a license, Microsoft opted to make the business decision to "efficiently infringe" the '397
8 patent. In doing so, Microsoft willfully infringed the '397 Patent.

9 67. Microsoft's infringement damaged and injured Express Mobile.

10 68. LinkedIn has performed a method to allow users to produce Internet websites
11 which infringed, either literally or under the doctrine of equivalents, one or more claims of
12 the '397 patent in violation of 35 U.S.C. § 271(a).

13 69. Upon information and belief, LinkedIn directly infringed at least claim 1 of the '397
14 patent through having provided website-building tools that are configured for use with one of a
15 number of browsers on a user's computer (the "Accused Instrumentality"). The Accused
16 Instrumentality performed a method to allow users to produce Internet websites on and for
17 computers having a browser and a virtual machine capable of generating displays.

18 70. The Accused Instrumentality enabled a user to produce a website through a browser
19 on the user's computer interacting with the LinkedIn's server facilities, hosted by LinkedIn.com.
20 For example, an individual created an account at LinkedIn.com and built a Profile page using the
21 Accused Instrumentality.

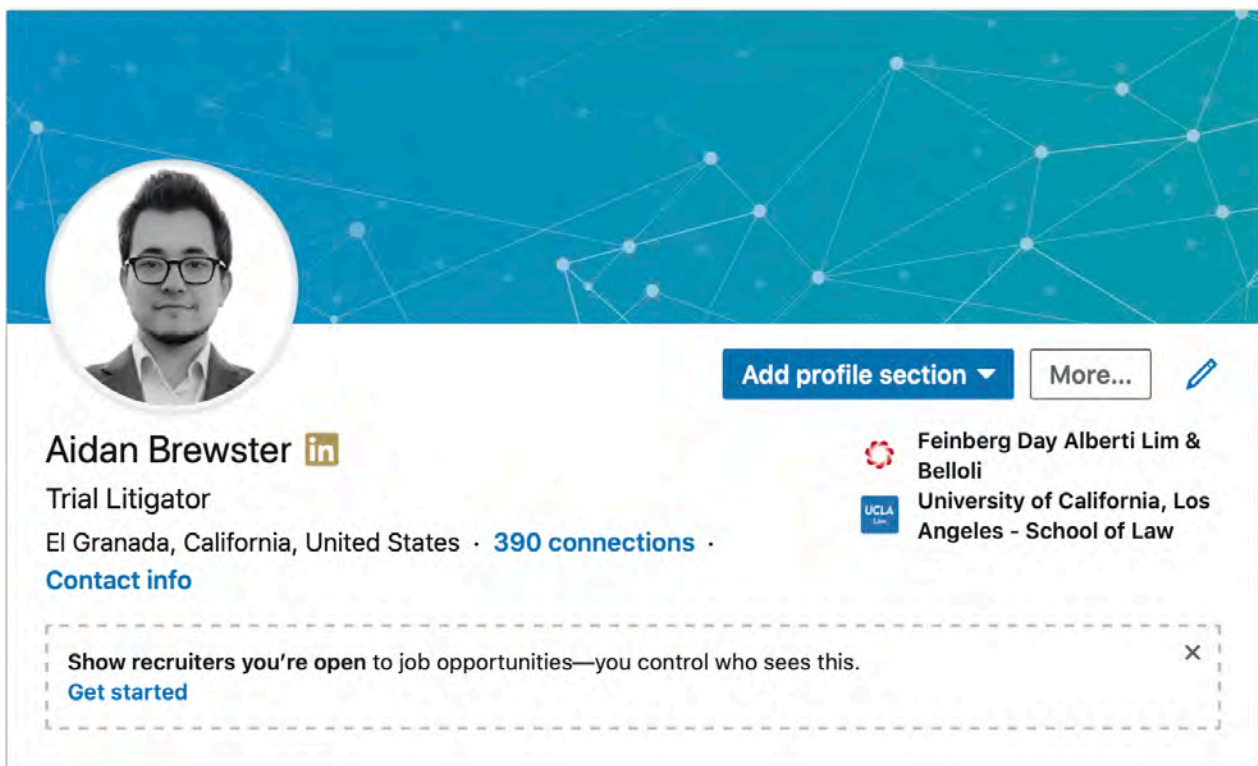


Fig.1: LinkedIn Profile, Intro Section

71. This resulted in a profile home page with a unique and stable URL that could be set by the user (as shown below) as well as a set of one or more related web pages, which included articles, videos, images, resumes, and the like.

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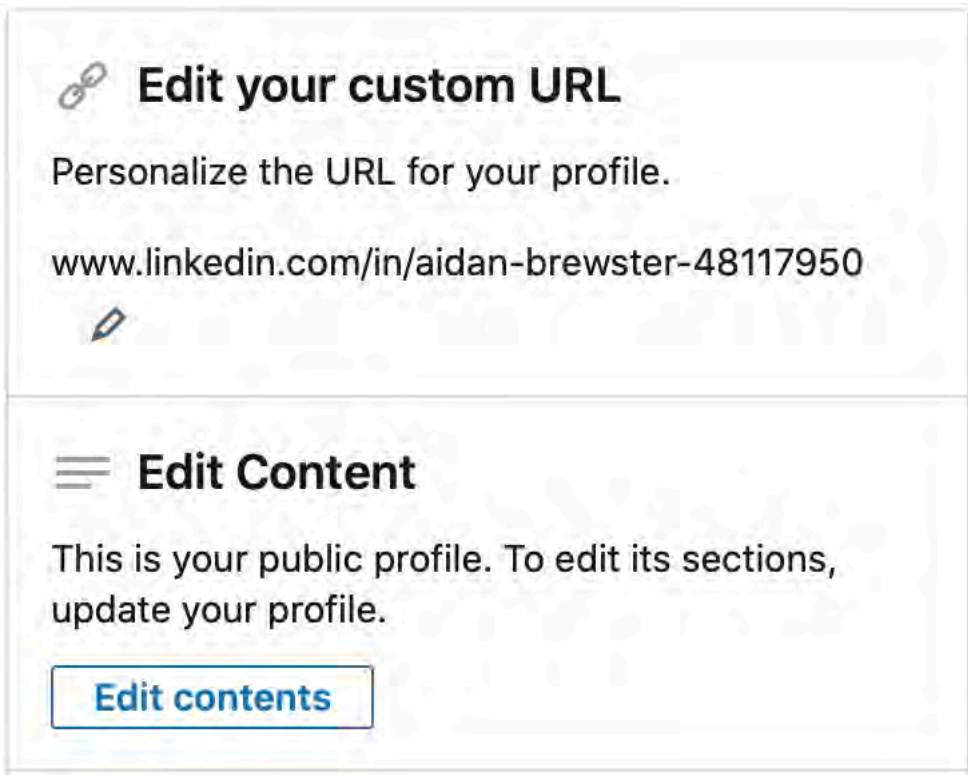


Fig. 2: LinkedIn page stable URL

72. The user could then add many different types of content, organized into sections, as shown below.

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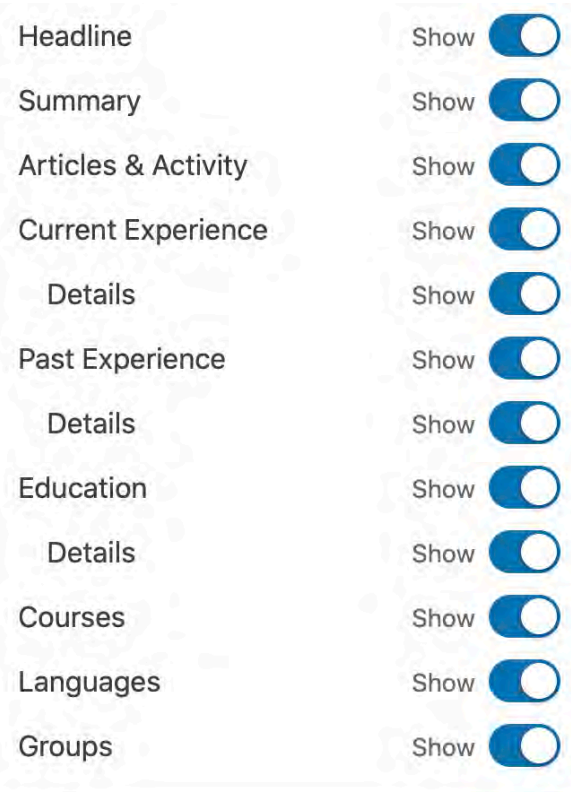


Fig. 3: Available Profile sections

Adding Sections to Your Profile

Displaying more of your professional accomplishments and interests can help to enhance your profile. This can increase the amount of times people view your profile, which can help you **build your network** and connect to new opportunities.

You can use the dropdown in **the introduction card on your profile** to add these sections to your profile:

- Intro
- About
- Background
- Skills
- Accomplishments
- Additional information
- Supported languages




Note: You can use the LinkedIn mobile app to edit existing sections, however you can only add new sections to your profile from your desktop.

To add sections to your profile:

1. Click the **@ Me** icon at the top of your LinkedIn homepage.
2. Click **View profile**.
3. Click **Add profile section** in your introduction card.

<https://www.linkedin.com/help/linkedin/topics/6042/6043/1284> - Adding Sections to Your Profile

To add or change your profile photo:

1. Click the  **Me** icon at the top of your LinkedIn homepage.
2. Click **View profile**.
3. Click on the  **Camera** icon or profile photo in your introduction card.
4. From the **Add photo** pop-up window, you can:
 - Click **Use camera** to take a photo using your device's camera.
 - Click **Upload photo** to select an image from your library.
5. Follow the prompts to take a photo or upload a photo.
6. In the **Edit photo** pop-up window, you can:
 - Click the **Change photo** button and follow the prompts.
 - Drag to reposition the photo.
 - Use **Zoom** to change the size of the photo.
 - Use **Straighten** or click the  **Rotate** icon to change the photo's position.
 - Crop the photo.
 - Use **photo filters**.
 - Adjust the brightness, contrast, saturation, and vignette of the photo.
 - Modify the visibility of your photo.
7. Click **Save photo**.

Note: You can also click the **Edit** icon in your introduction card, and then click the profile photo to access the photo editing page.

(<https://www.linkedin.com/help/linkedin/topics/6042/6059/1615> - Add or Change Your LinkedIn Profile Photo)

73. The Accused Instrumentality supported major browsers such as Microsoft Edge, Firefox, Chrome, and Safari. All of these browsers relied on browser engines to interpret and execute JavaScript and HTML to render web pages on a computer. Internet Explorer relies on Chromium (which uses the Blink and V8 engines, see [https://en.wikipedia.org/wiki/Blink_\(browser_engine\)](https://en.wikipedia.org/wiki/Blink_(browser_engine)); [https://en.wikipedia.org/wiki/V8_\(JavaScript_engine\)](https://en.wikipedia.org/wiki/V8_(JavaScript_engine))); Safari and Chrome rely on Webkit (which includes WebCore and JavaScript Core, see <http://en.wikipedia.org/wiki/WebKit>); Firefox relies on Gecko (which includes Spidermonkey, see <http://www.mozilla.org/projects/technologies.html>); Opera currently relies on Presto (which in turn relies on Carakan) and will soon move to WebKit. (See http://en.wikipedia.org/wiki/Presto_layout_engine).

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Supported Internet Browsers for LinkedIn

For an optimal site experience, better encryption, and privacy support, we recommend using the latest versions (current and previous major releases) of the browsers listed below.

Important: Using older browser versions can prevent you from accessing LinkedIn, and some site features may not function as expected. Please note that browsers supported on desktop may be different from those supported on mobile.

We support the current and previous major releases of the following desktop browsers:

- **Microsoft Edge** (current and last major revision)
- **Firefox** (current and last major revision)
- **Chrome** (current and last major revision)
- **Safari** (current and last major revision)

<https://www.linkedin.com/help/linkedin/answer/4135/supported-internet-browsers-for-linkedin?lang=en> – Supported Internet Browsers for LinkedIn)

74. These engines fit the definition of a process virtual machine found at Dictionary.com website. (See <http://dictionary.reference.com/browse/virtual+machine?s=t>).

“An abstract machine for which an interpreter exists. Virtual machines are often used in the implementation of portable executors for high-level languages (HLLs). The HLL is compiled into code for the virtual machine (an intermediate language) which is then executed by an interpreter written in assembly language or some other portable language like C. Examples are Core War, Java Virtual Machine, OCODE, OS/2, POPLOG, Portable Scheme Interpreter, Portable Standard Lisp, Parallel Virtual Machine, Sequential Parlog Machine, SNOBOL Implementation Language, SODA, Smalltalk”

75. The Accused Instrumentality presented a viewable menu having a user selectable panel of settings describing elements on a website, said panel of settings being presented through a browser on a computer adapted to accept one or more of said selectable settings in said panel as inputs therefrom, and where at least one of said user selectable settings in said panel corresponds to commands to said virtual machine. After Logging into LinkedIn, the Profile page can be edited by selecting “Edit public profile & URL,” or by clicking the “Edit” icon beside individual sections, which opens an interface for editing the user’s Profile page, including options such as hiding and showing sections, editing the content of those sections, modifying profile and background photos, and other dynamic modification of content.

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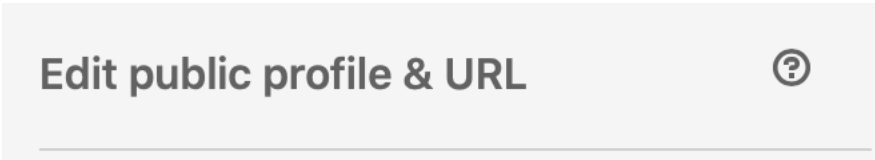
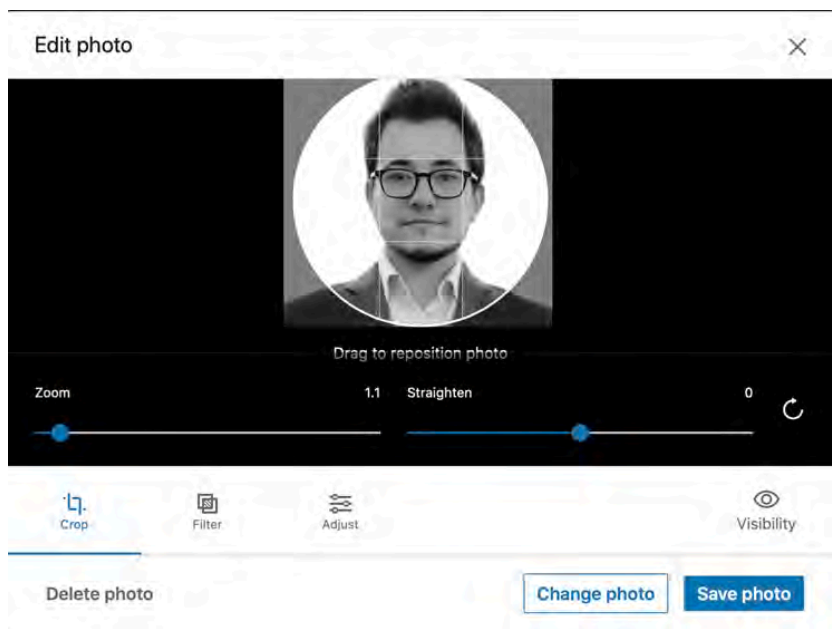


Fig 3: “Edit” link for profile editing

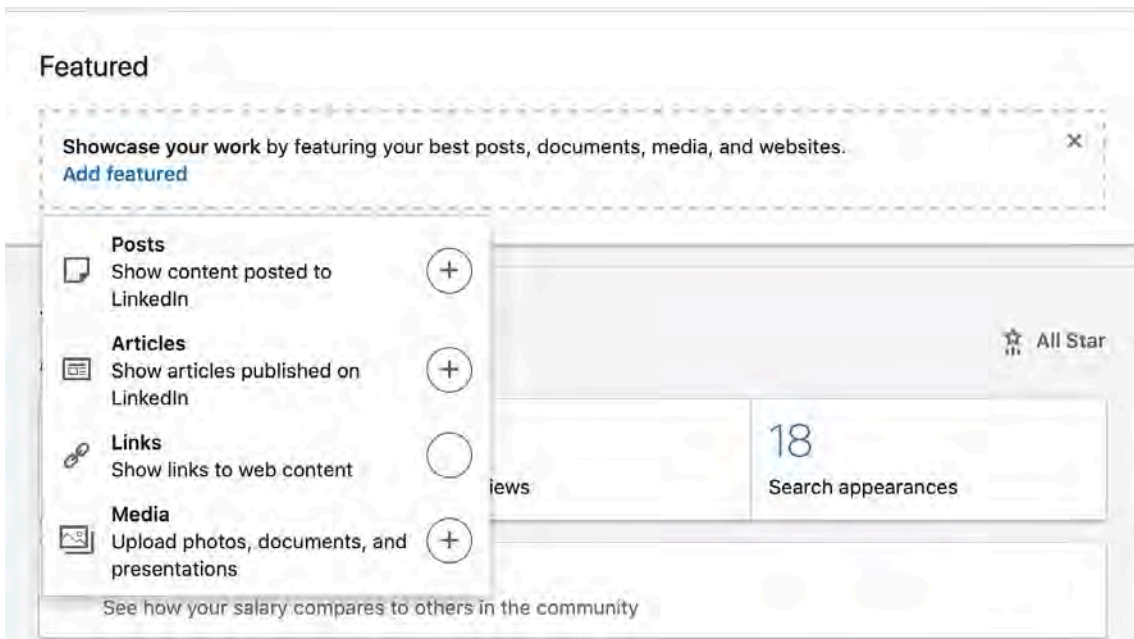
76. The Accused Instrumentality presented a user with a wide variety of different settings for different elements of the Profile page. For example, clicking the Profile page Profile Photo element opened an editing interface including several controls for modifying the orientation of a photo, applying filters, and making other visual adjustments to the user’s profile photo which were then reflected in the page.



(Edit Photo menu on LinkedIn Profile page)

77. As another representative example, activating the “Featured” Profile page element invoked a menu of settings for choosing and displaying content.

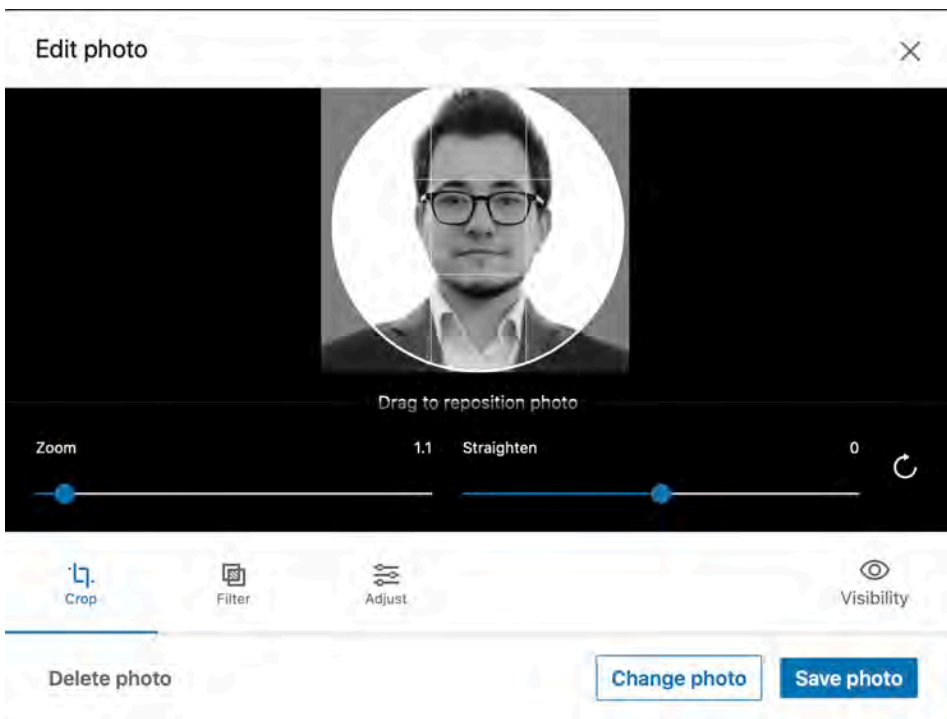
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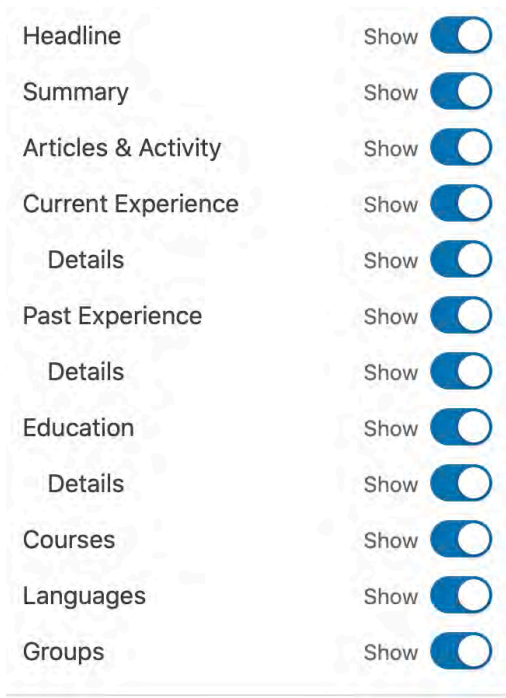
78. If the user chose any of the displayed options, an additional window was opened to allow customizing of the display of that particular content type. Once these changes were made, the user’s Profile page was modified to display those changes. Because the compatible browsers all relied on browser engines (which are process virtual machines) to generate and display the user-authored web pages on a particular computer, the settings that a user-author selected through the LinkedIn editing interface necessarily correspond to virtual machine commands. For example, JavaScript and HTML code were used by the browser’s engine to generate and display a LinkedIn web page for a user viewing the web page on a computer, the author’s selections being reflected in the displayed page.

79. The Accused Instrumentality generated a display in accordance with one or more user selected settings substantially contemporaneously with the selection thereof. This is performed, for example, using the LinkedIn visual editing tool through the browser. For example, the screens below show the selection and editing of images and elements displayed on a user’s Profile page via the Accused Instrumentality’s editing environment.

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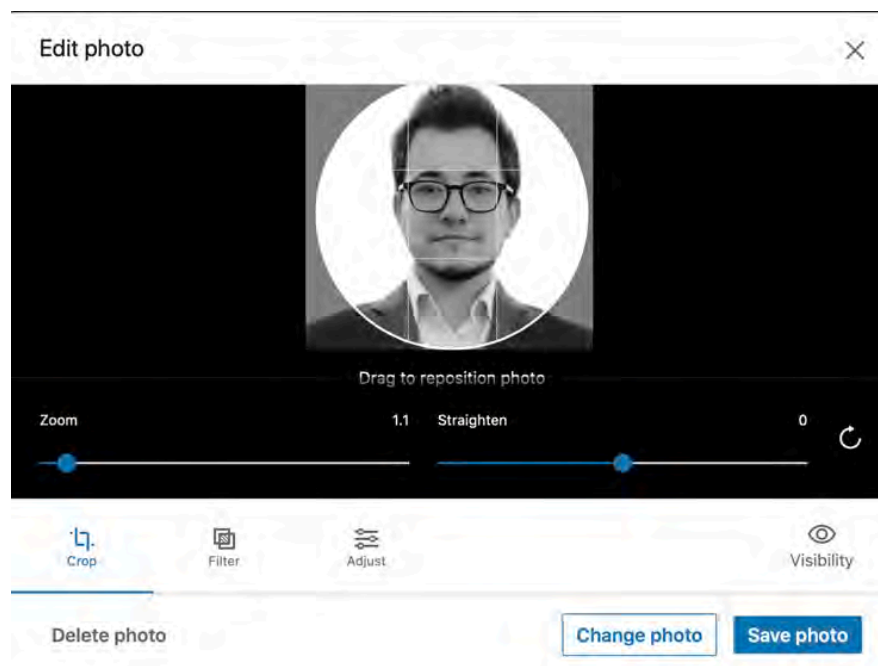
(Edit Photo menu on LinkedIn Profile page)



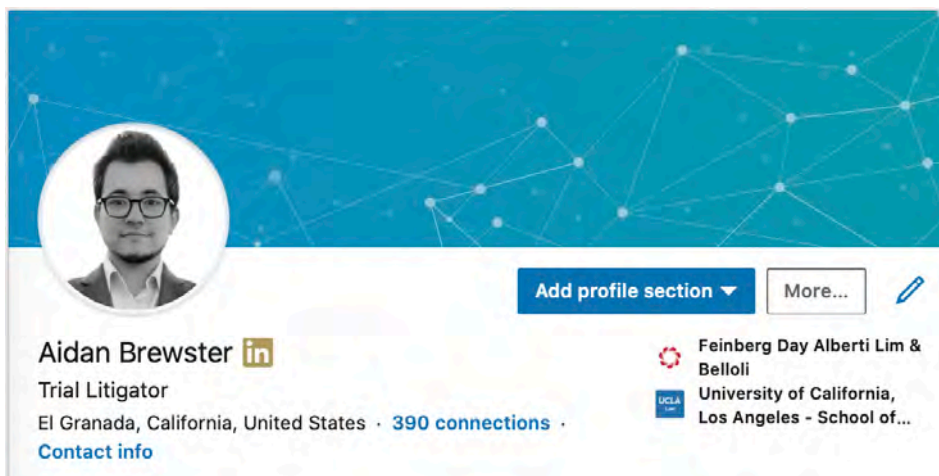
(Visibility toggle menu on different Profile page elements in LinkedIn editor)

80. In the exemplary image below, the user selected settings in the Accused Instrumentality editing environment (Profile photo properties) were immediately reflected in the

1 user's LinkedIn Profile page as soon as the changes were made. These settings and the resulting
 2 page display changes are shown below.



14 (Edit Photo menu on LinkedIn Profile page)

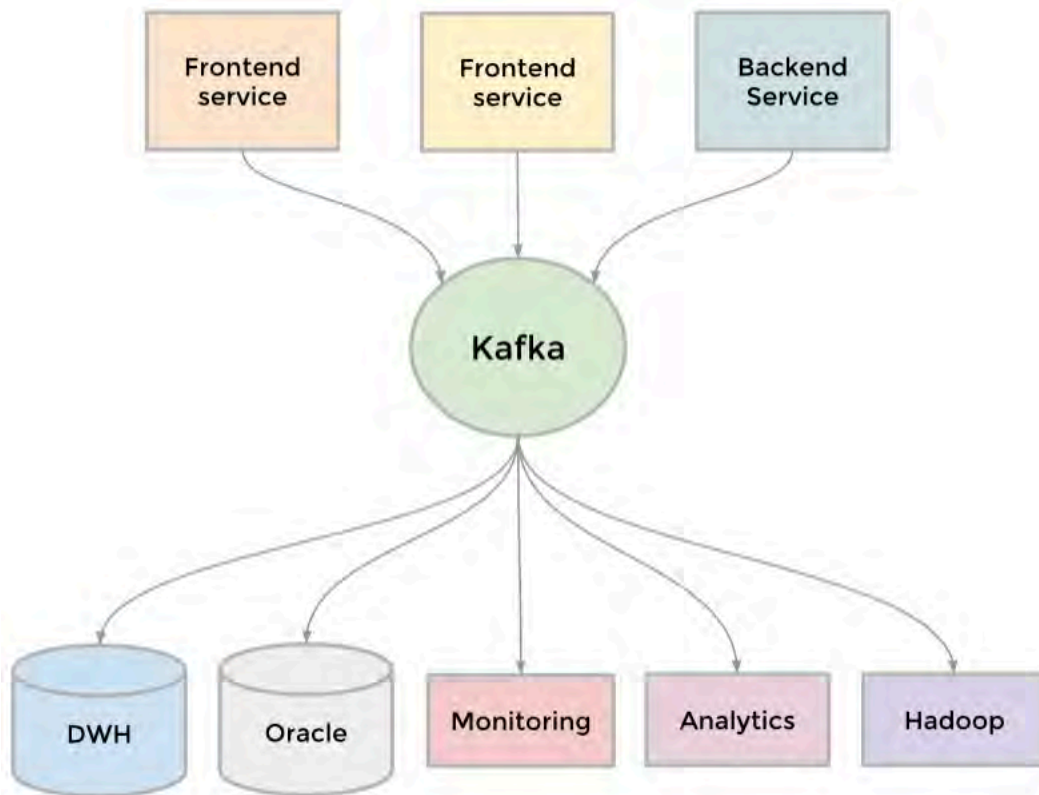


22 (Profile photo changes reflected on LinkedIn Profile page immediately, without refresh)

23 81. User selected settings were displayed substantially contemporaneously with the
 24 selection thereof. In the examples above, the image and element changes are applied on the page,
 25 live, as soon as the change was made.

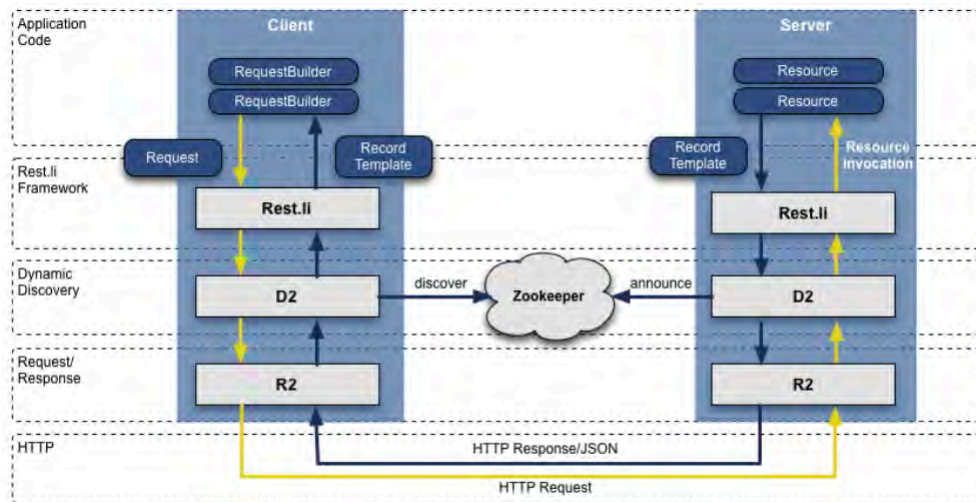
26 82. The Accused Instrumentality stored information representative of said one or more
 27 user selected settings in a database. For example, the Accused Products create a Profile page and
 28

1 associated content which is stored on servers managed by LinkedIn. LinkedIn stored member
2 profile pages, and their associated user selected settings, in databases. As LinkedIn notes, the
3 “member profile database” is “LinkedIn’s most critical system.”
4 <https://engineering.linkedin.com/architecture/brief-history-scaling-linkedin>. Below are images
5 showing the organization of LinkedIn’s application/server stack and Kafka data pipeline
6 architecture.



Kafka as the universal data stream broker

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21 (Kafka data pipeline architecture, <https://engineering.linkedin.com/architecture/brief-history-scaling-linkedin>)
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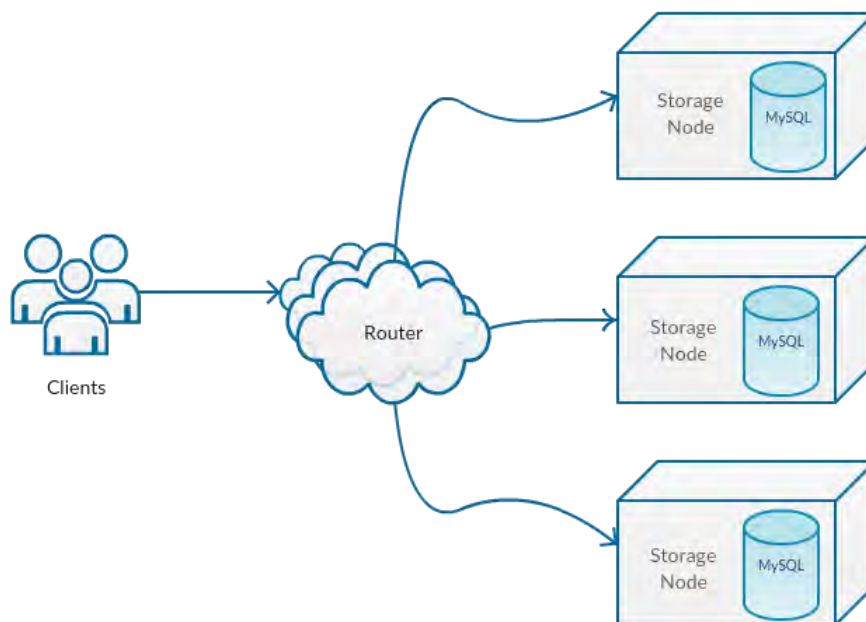


Rest.li R2/D2 tech stack

(LinkedIn Rest.li API architecture, <https://engineering.linkedin.com/architecture/brief-history-scaling-linkedin>)

83. The Accused Instrumentality generated a website at least in part by retrieving said information representative of said one or more user selected settings stored in said database. In particular, the author-user generated and viewed the created web page. The Accused Instrumentality generated the Profile page viewable by other members using Java. Specifically, the Profile page was rendered using the Java Virtual Machine (JVM). https://engineering.linkedin.com/blog/2016/01/tuning_espresso_jvm “The member profile page is one of the most-visited pages on LinkedIn.” *Id.* The Accused Instrumentality stored profile data in Espresso, which is a proprietary database system on top of which Identity, the profile data service, runs.

We store profile data in Espresso, LinkedIn’s distributed, document-oriented, horizontally scalable, and highly available key-value datastore. When users make a read or write request to Espresso, a router first forwards the request to a storage node containing the requested data. The router uses [R2](#) for connection pooling, load balancing, and HTTP transport, and it uses [D2](#) for service discovery. The router maintains an asynchronous pool of connections to storage nodes to handle requests that are sent to multiple storage nodes but are then sent back as a single response. Routers also have the ability to set specific routing rules for read requests that can be sent to a combination of master and slave storage nodes. Most clients choose to read from master storage nodes only to guarantee read after write consistency, however, clients also have the option of scaling reads by sending them to slave nodes at the cost of reading stale data.

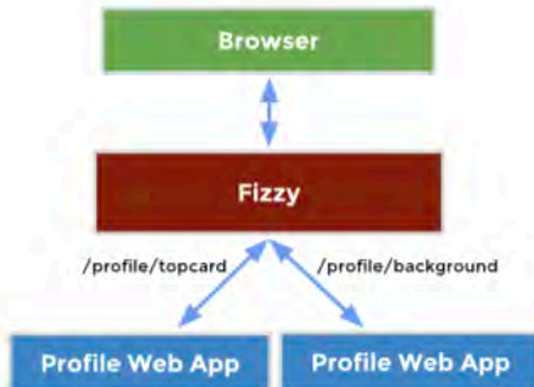


12 The Identity service, the system which serves profile data, has doubled its number of
13 maximum queries per second over this past year to serve growing numbers of callers and to
14 be able to handle traffic at peak hours during our traffic shift (when traffic from other data
15 centers are redirected to the center that is being shifted to). The service itself makes hundreds
16 of thousands of queries per second on the storage nodes. The Identity service has a mix of
17 offline (Hadoop) and online (website) traffic. Offline traffic only happens during the start of the
18 hour for a few minutes. Because of a combination of regular online traffic, additional
19 campaigns from offline traffic, peak traffic hours, and a larger member base, the Java heap's
20 old generation started seeing a variety of small to large objects. The longer the service was
21 alive, the more CMS cycles it incurred from 'heap fragmentation' issues within the JVM.

22 (https://engineering.linkedin.com/blog/2016/01/tuning_espresso_jvm)

23 84. A user having edited a LinkedIn profile page made a write request to Espresso,
24 which forwarded this request to the appropriate Storage Node in Espresso, each node running a
25 MySQL database in which this profile data, consisting of one or more user selected settings, was
26 stored. When a user viewed a Profile page on LinkedIn, their client, using the virtual machine,
27 made a read request to Espresso. Espresso forwarded the query to the Storage Node in which the
28 requested data is stored and returned it to the client browser, which rendered the appropriate HTML
for the client machine. The Accused Instrumentality's Profile page, using LinkedIn's Fizzy and
Dust.js systems, retrieved and rendered data in the client browser by accessing the database.

2. **Fizzy client-side:** the browser part of Fizzy is a JavaScript library that is responsible for rendering the markup when data from each web app is received.

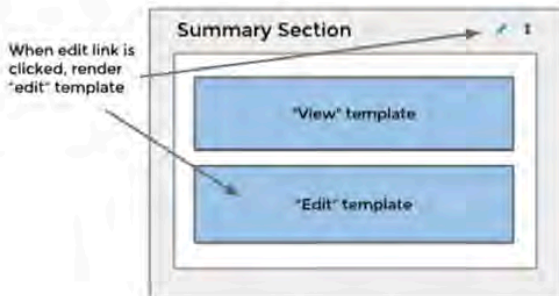


(<https://engineering.linkedin.com/profile/engineering-new-linkedin-profile>)

Re-render and Replace!

The ease of re-rendering templates enabled our page to become more interactive. One of the better changes over the old profile was the ability to inline edit every form on the page. We wanted to make it as seamless as possible to modify any item on your profile.

For example, let's consider the Summary section. We created multiple templates including an outer container with edit controls, a "view" template, and an "edit" template representing the form.



Each template will construct the form, prefill the data, and add JavaScript to handle the Ajax form submission. Upon submit, the server returns the updated summary data as JSON. This triggers a callback to re-render the "view" template with the returned JSON.

Using Dust to render this HTML improved our development speed and provided a repeatable pattern for all our edit forms.

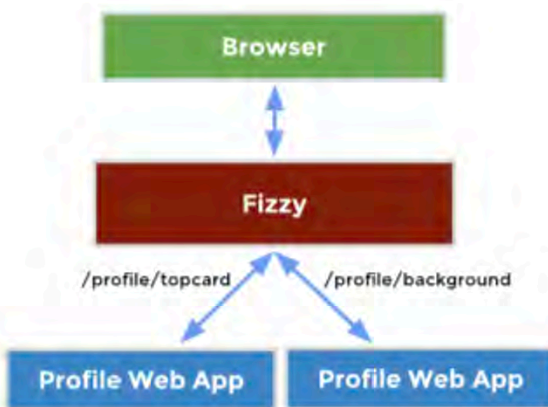
(<https://engineering.linkedin.com/profile/engineering-new-linkedin-profile>)

85. As described in LinkedIn’s engineering blog post above, when a user viewed a Profile page, the “View” template in Dust.js rendered the data consisting of information representative of user selected settings such as those described previously by using client-side Fizzy in the browser’s virtual machine. Dust.js and Fizzy retrieved the information from the

1 LinkedIn database using Espresso, and rendered the web page in the client browser through the
 2 virtual machine.

3 86. The Accused Instrumentality built one or more web pages to generate said website
 4 from at least a portion of said database and at least one run time file, where said at least one run
 5 time file utilized information stored in said database to generate virtual machine commands for the
 6 display of at least a portion of said one or more web pages. In the Accused Instrumentality, the
 7 Profile page view consisted of a Dust.js template, as explained by LinkedIn.
 8 (<https://engineering.linkedin.com/profile/engineering-new-linkedin-profile>).

9 2. **Fizzy client-side:** the browser part of Fizzy is a JavaScript library that is
 10 responsible for rendering the markup when data from each web app is received.

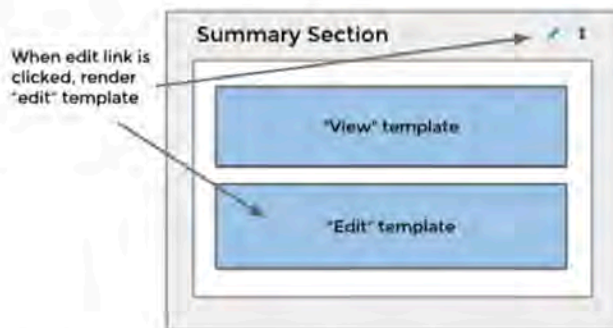


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18 (<https://engineering.linkedin.com/profile/engineering-new-linkedin-profile>)

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For example, let's consider the Summary section. We created multiple templates including an outer container with edit controls, a "view" template, and an "edit" template representing the form.



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Using Dust to render this HTML improved our development speed and provided a repeatable pattern for all our edit forms.

(<https://engineering.linkedin.com/profile/engineering-new-linkedin-profile>)

87. Dust templates were compiled into JavaScript files that were served to the client. (See, e.g., LinkedIn's github wiki at <https://github.com/linkedin/dustjs/wiki/Dust-Tutorial>). As explained above in the excerpts from LinkedIn's engineering blog, a dust template was used to render the HTML via instructions to the browser's virtual machine in order to create the "View" and "Edit" templates, which a user saw when viewing the Profile page or performing dynamic editing on the profile page. Dust added additional JavaScript to the page in order to submit Ajax queries to the Accused Instrumentality's databases. Once these queries were completed in order to read or write user selected settings to the database, along with associated formatting data and content, the Dust framework in the Accused Instrumentality's runtime file would accept the JSON returned by these queries from the database and re-render the section(s) dynamically, each section comprising a portion of the web page (Profile page).

88. LinkedIn's infringement has damaged and injured Express Mobile.

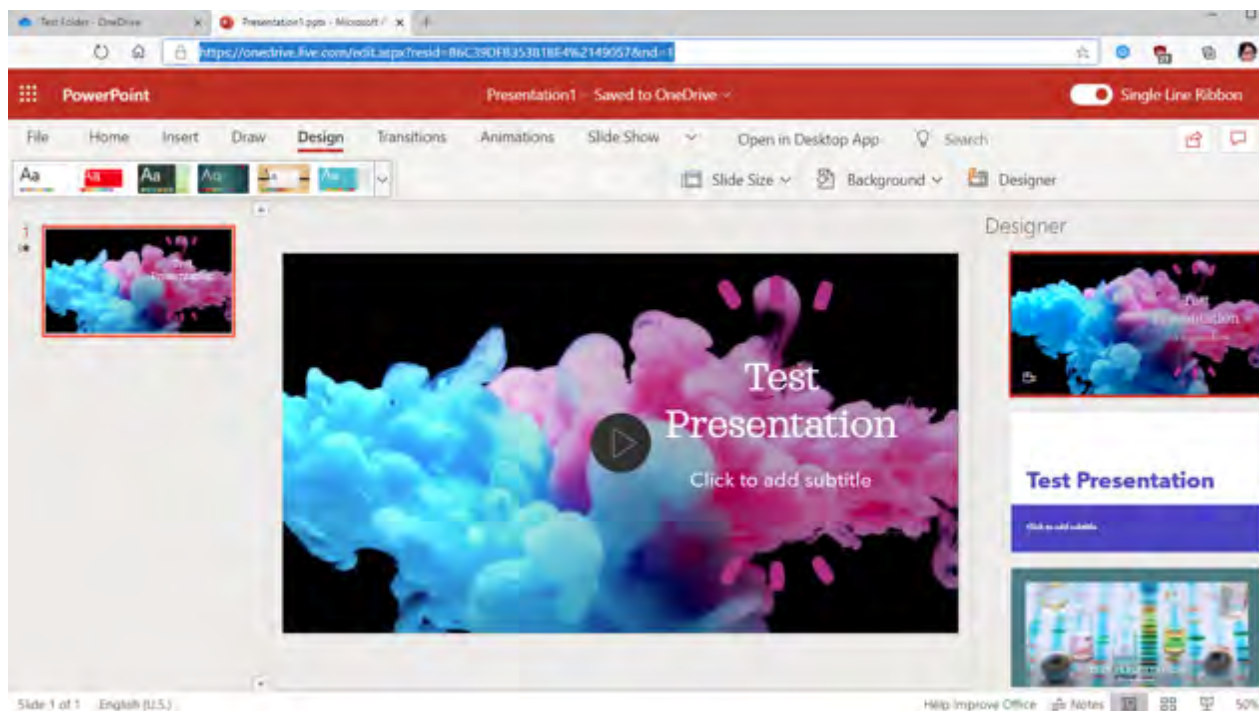
COUNT II - INFRINGEMENT OF U.S. PATENT NO. 7,594,168

89. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 88 above.

90. Microsoft has manufactured, used, sold, offered to sell and/or provided and continues to manufacture, use, sell, offer to sell and/or provide a browser-based version of Microsoft Office Web App that comprises a system to assemble a website (the “Accused Instrumentality”) that infringes, either literally or under the doctrine of equivalents, one or more claims of the ’168 patent in violation of 35 U.S.C. § 271(a).

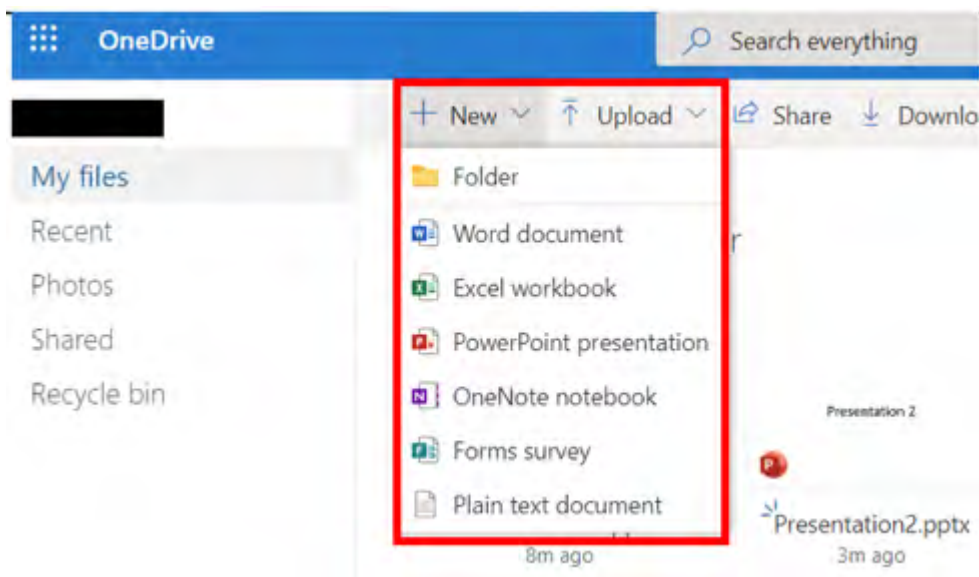
91. Upon information and belief, Microsoft has directly infringed at least claim 1 of the ’168 patent through its Accused Instrumentality that is a system for generating a website.

92. The Accused Instrumentality is a system for assembling a web site (e.g., each presentation or collection or presentations created is a unique website accessible via the web at an assigned address).



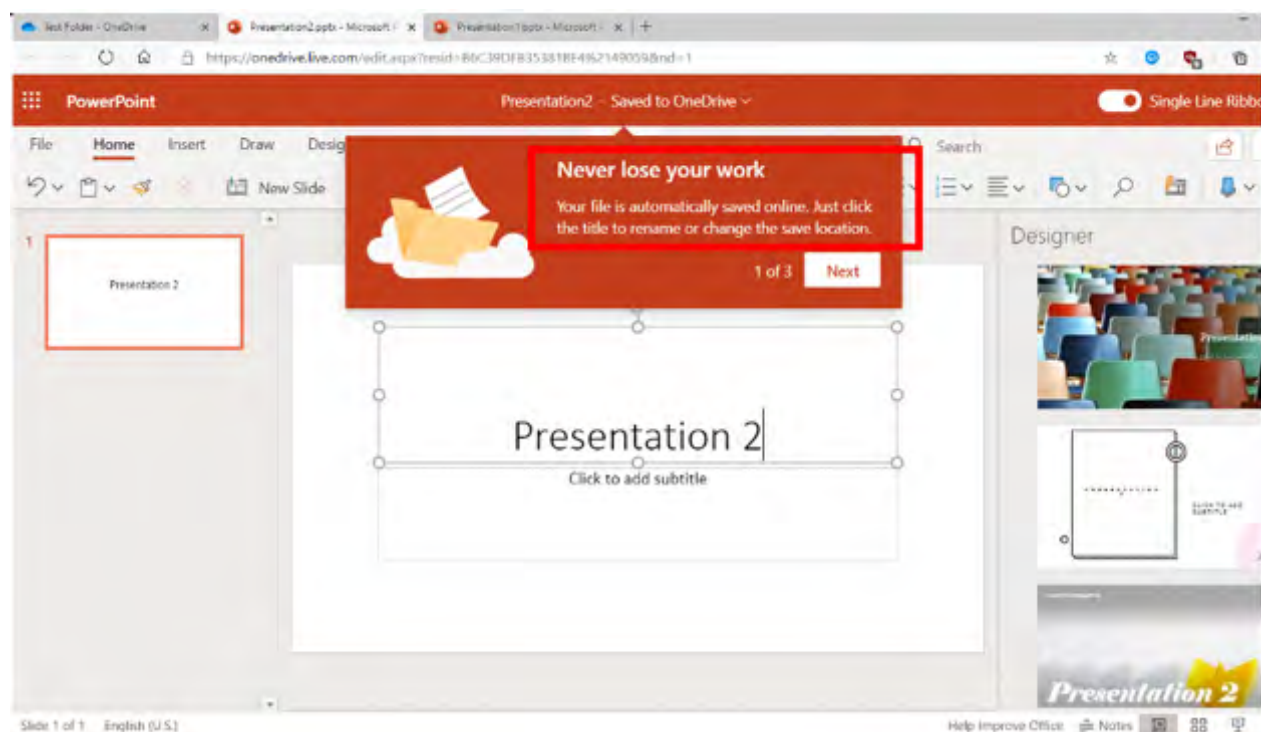
Source: <https://onedrive.live.com/edit.aspx?resid=B6C39DFB35381BE4%2149057&nd=1>

1 93. The Accused Instrumentality comprises a server comprising a build engine. For
 2 example, Microsoft offers the ability for its users to create documents entirely online, through
 3 their browsers, such as by clicking the “New” button and creating a document. Microsoft
 4 describes these files as being “automatically saved online.”



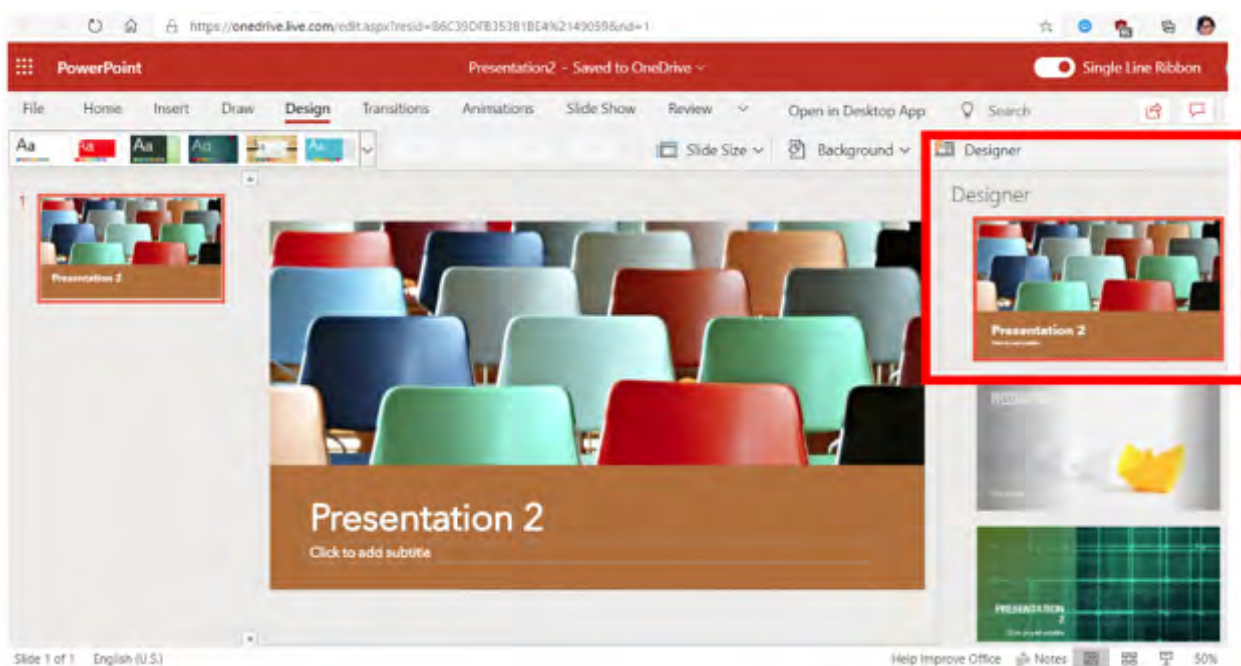
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1 94. The Accused Instrumentality accepts user input to create a web site, the web site
2 comprising a plurality of web pages, each web page comprising a plurality of objects to accept
3 user input to associate a style with objects of the plurality of web pages. For example, a web site
4 such as a collection of Office documents may be created. Each Office document is a different
5 web page. Each Office document comprises a plurality of objects, and the Accused
6 Instrumentality accepts user input to associate a style with objects in these Office documents.
7 For example, a user may use the “Designer” within PowerPoint to select a theme for every page
8 of a presentation.



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21 95. Other objects can be added, such as pictures.

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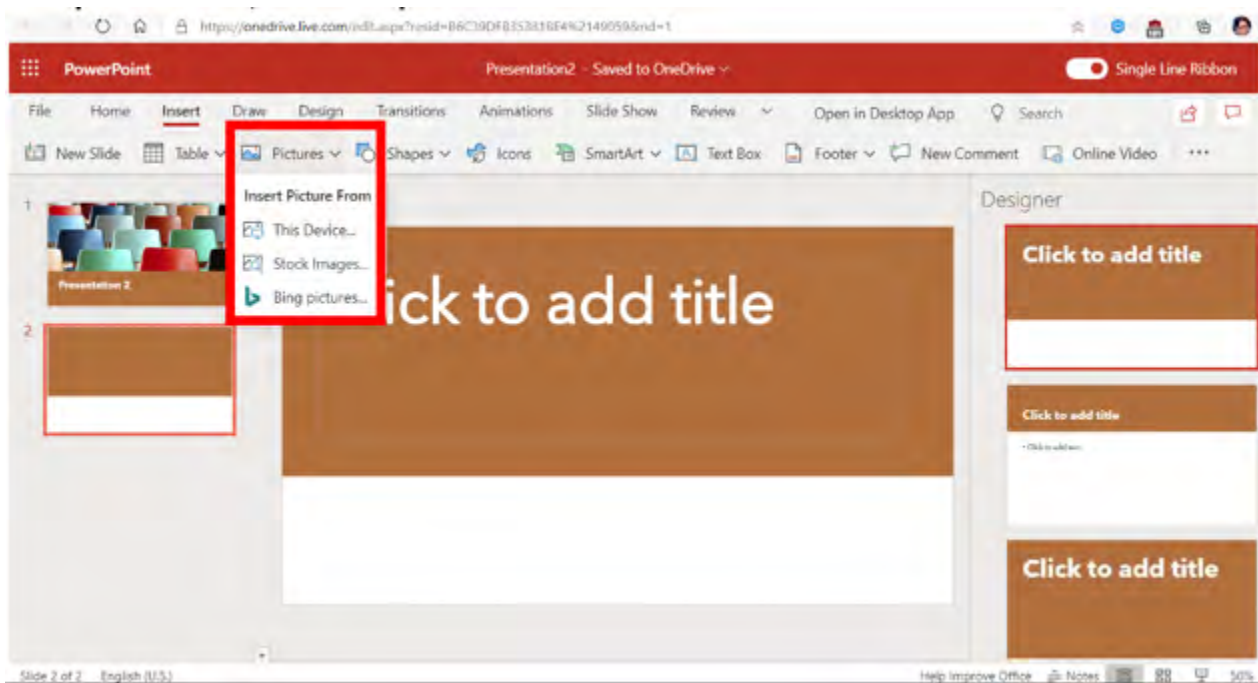
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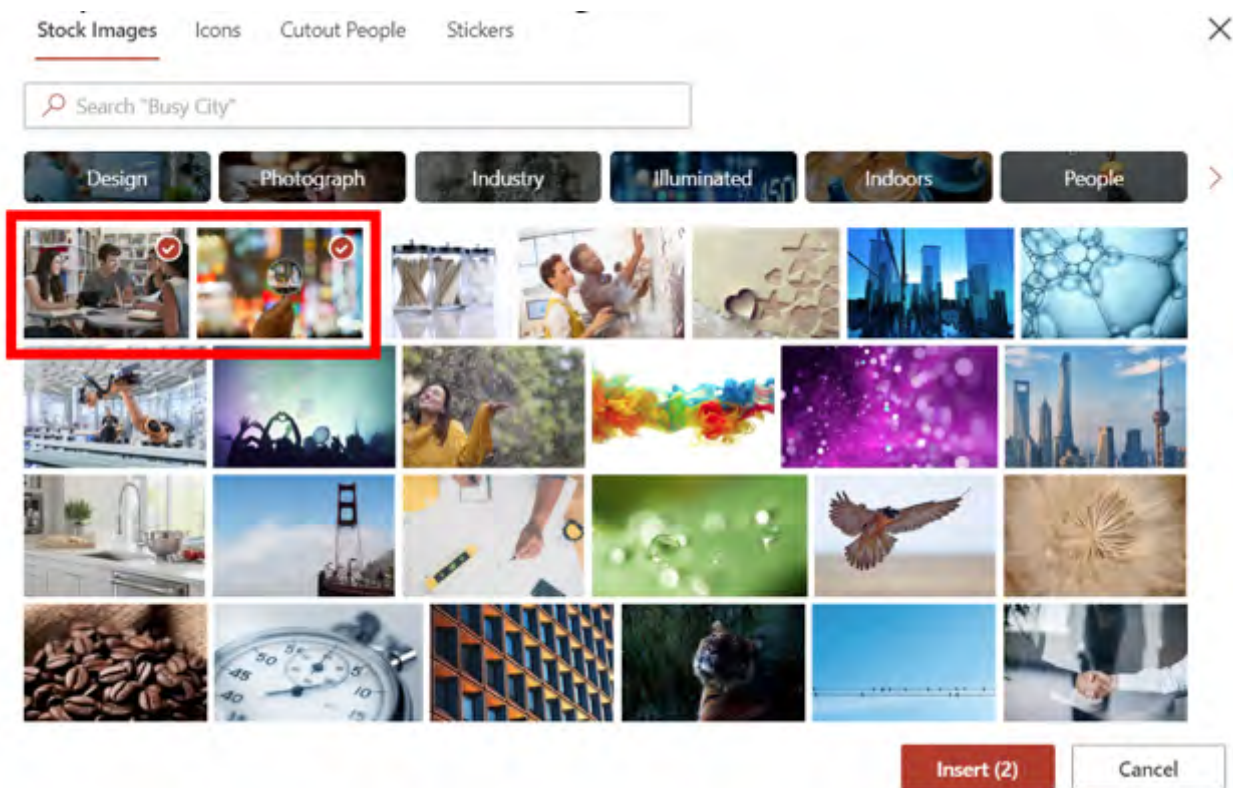
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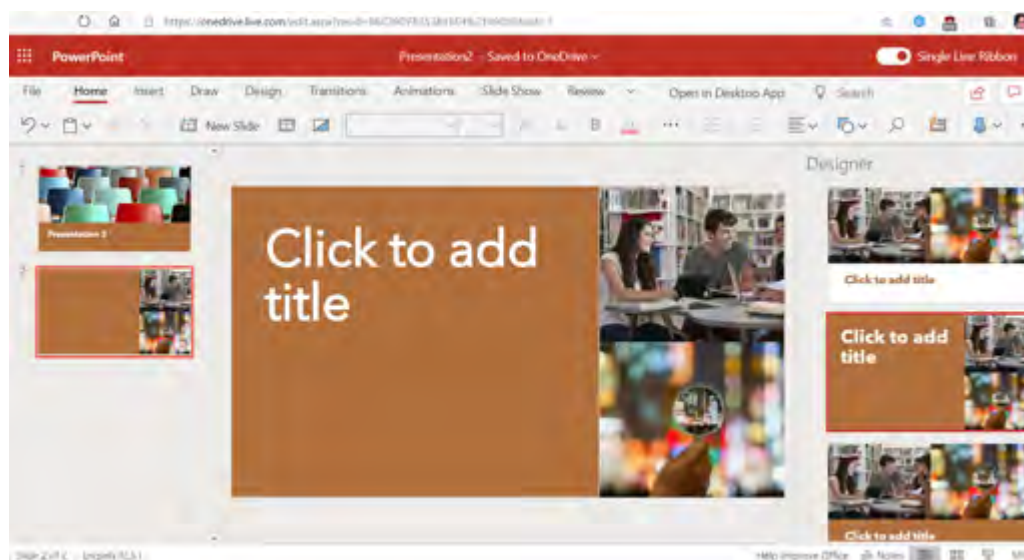
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96. A user can select from stock images.



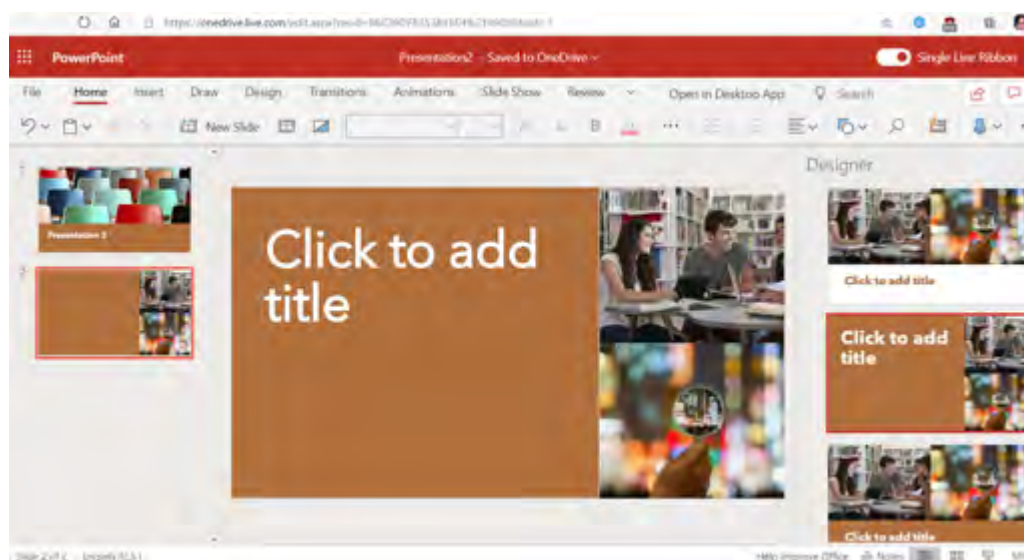
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1 97. A user may manually re-arrange these images or use one of Microsoft's
2 automated tools, such as Designer, to arrange the images in the slide.



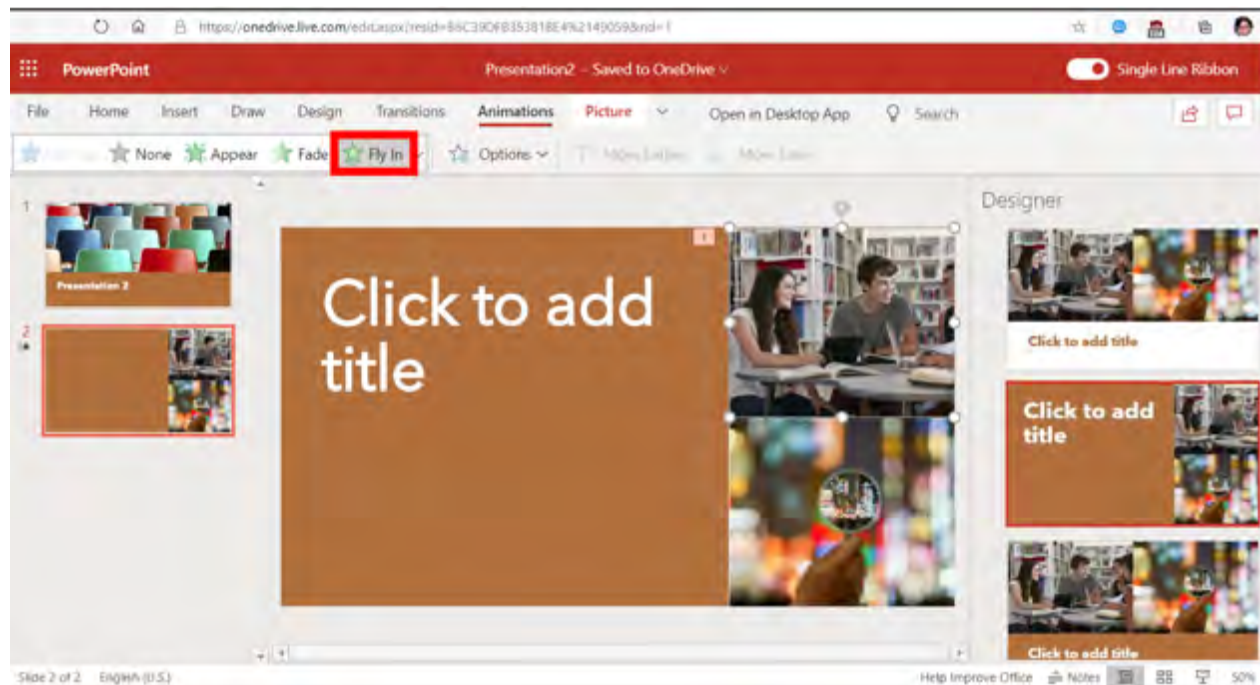
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14 98. Each web page comprises at least one button object or at least one image object.
15 For example, in the presentation being constructed above, image objects are able to be added to
16 every slide of the presentation.



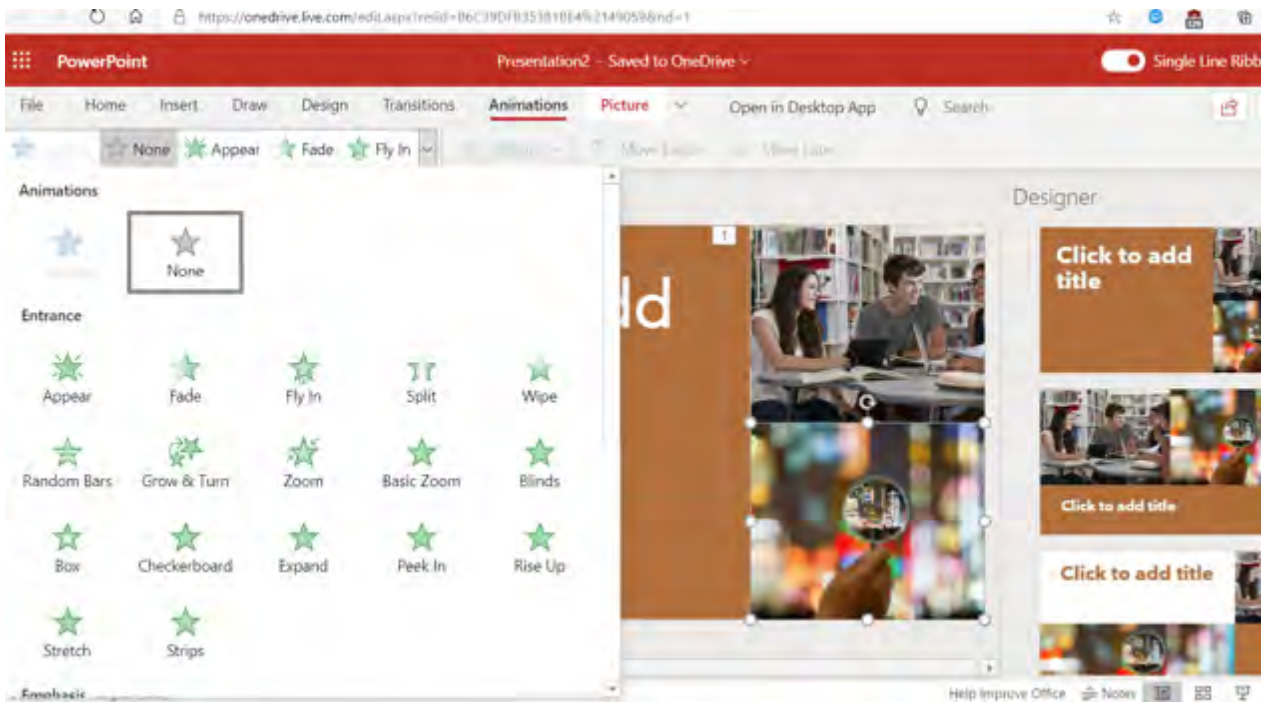
26 **Source:** <https://onedrive.live.com/edit.aspx?resid=B6C39DFB35381BE4%2149059&nd=1>

1 99. In the Accused Instrumentality, the at least one button object or at least one image
2 object is associated with a style that includes values defining transformations and time lines for
3 the at least one button object or at least one image object. For example, a user may click on a
4 picture, select “Animations,” and select an animation such as “Fly In.”



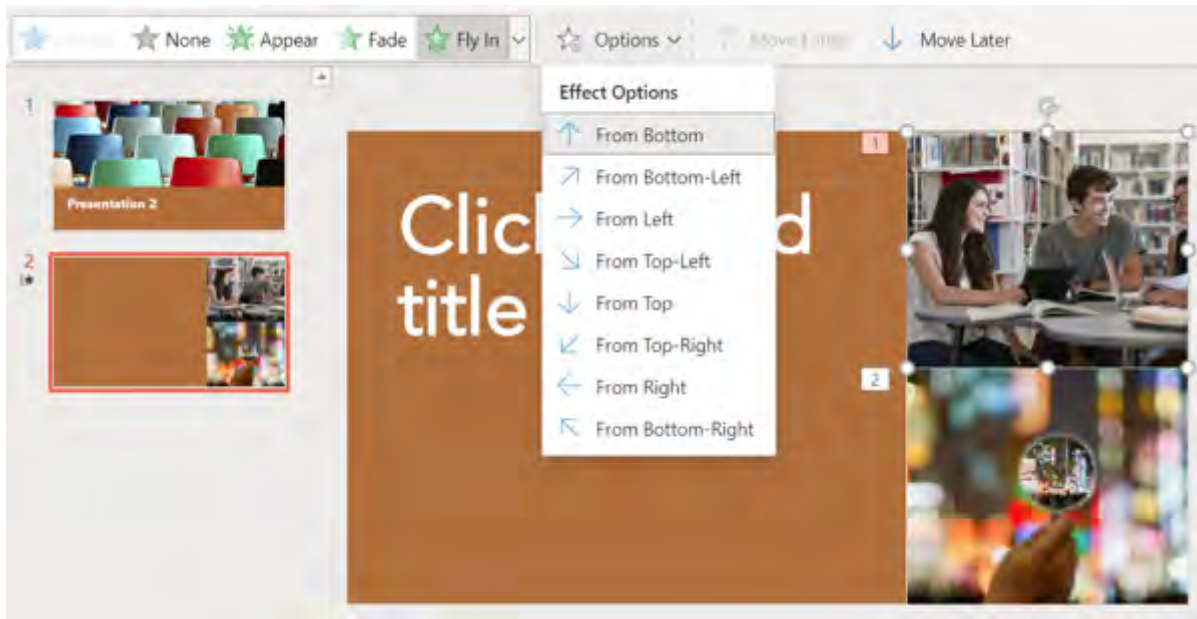
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18 100. More animations are available. For example, a user could select the “stretch”
19 animation for the second image on the page.



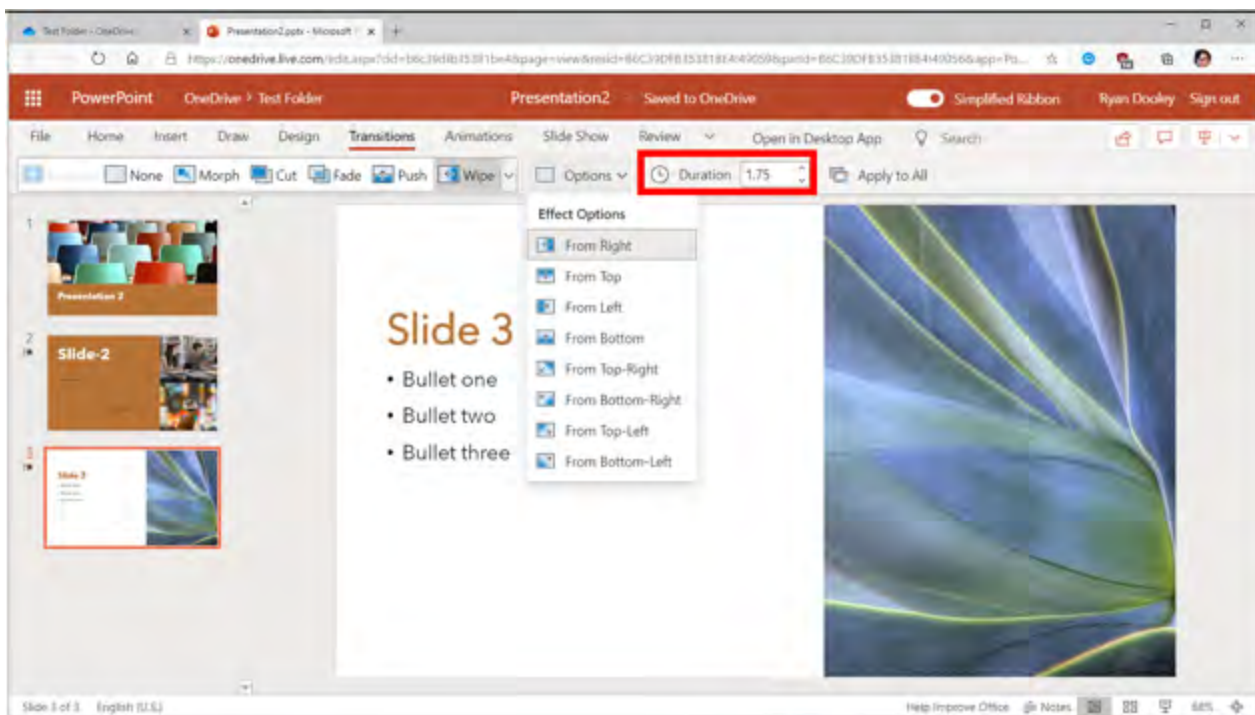
Source: <https://onedrive.live.com/edit.aspx?resid=B6C39DFB35381BE4%2149059&nd=1>

101. Each animation has values defining the transformations and timelines applicable to each image. For example, animations have options that may be changed, such as where an image may fly-in from, such as “From Bottom” or “From Bottom-Left.” Because these animations take place over time, they include a value defining a time line.



Source: <https://onedrive.live.com/edit.aspx?resid=B6C39DFB35381BE4%2149059&nd=1>

1 102. As an additional example, each slide is also an image object, which is associated
 2 with a style that includes values defining transformations and time lines. For example, a user
 3 may apply a style to Slide 3 that includes the Transition “Wipe,” which includes selectable
 4 options such as which direction the “Wipe” will go, and timeline settings such as “Duration,” set
 5 to 1.75 seconds, here.

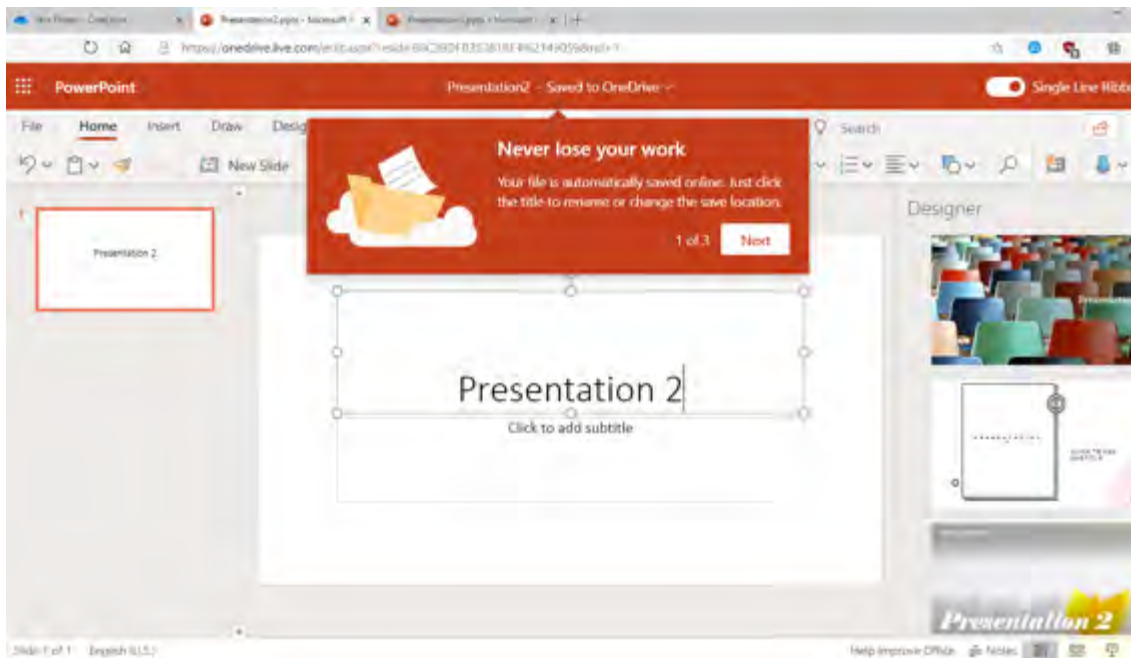


18 **Source:** <https://onedrive.live.com/edit.aspx?resid=B6C39DFB35381BE4%2149059&nd=1>

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20 103. In the Accused Instrumentality, each web page is defined entirely by each of the
 21 plurality of objects comprising that web page and the style associated with the object. For
 22 example, each presentation is defined entirely by the slides and the style associated with the
 23 slide. For example, with the default style, a slide will display with black text on a white
 24 background.

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104. After changing the theme of a presentation, the page is entirely transformed, as the background and objects have all changed their styles.



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105. Each web page is also defined entirely by each of the plurality of objects comprising that web page and the style associated with the object due to a web page's reliance

1 on HTML. Using the Document Object Model, modern browsers parse the HTML code that
2 comprises web pages into objects.

3 Each web page is also defined entirely by each of the plurality of objects comprising that web page and
4 the style associated with the object due to a web page's reliance on HTML. Using the Document Object
5 Model, modern browsers parse the HTML code that comprises web pages into objects.

6 The Document Object Model (DOM) connects web pages to scripts or programming
7 languages by representing the structure of a document—such as the HTML representing
8 a web page—in memory. Usually, that means JavaScript, although modeling HTML, SVG,
9 or XML documents as objects are not part of the core JavaScript language, as such.

10 The DOM represents a document with a logical tree. Each branch of the tree ends in a
11 node, and each node contains objects. **DOM methods allow programmatic access to the
12 tree. With them, you can change the document's structure, style, or content.**

13 https://developer.mozilla.org/en-US/docs/Web/API/Document_Object_Model

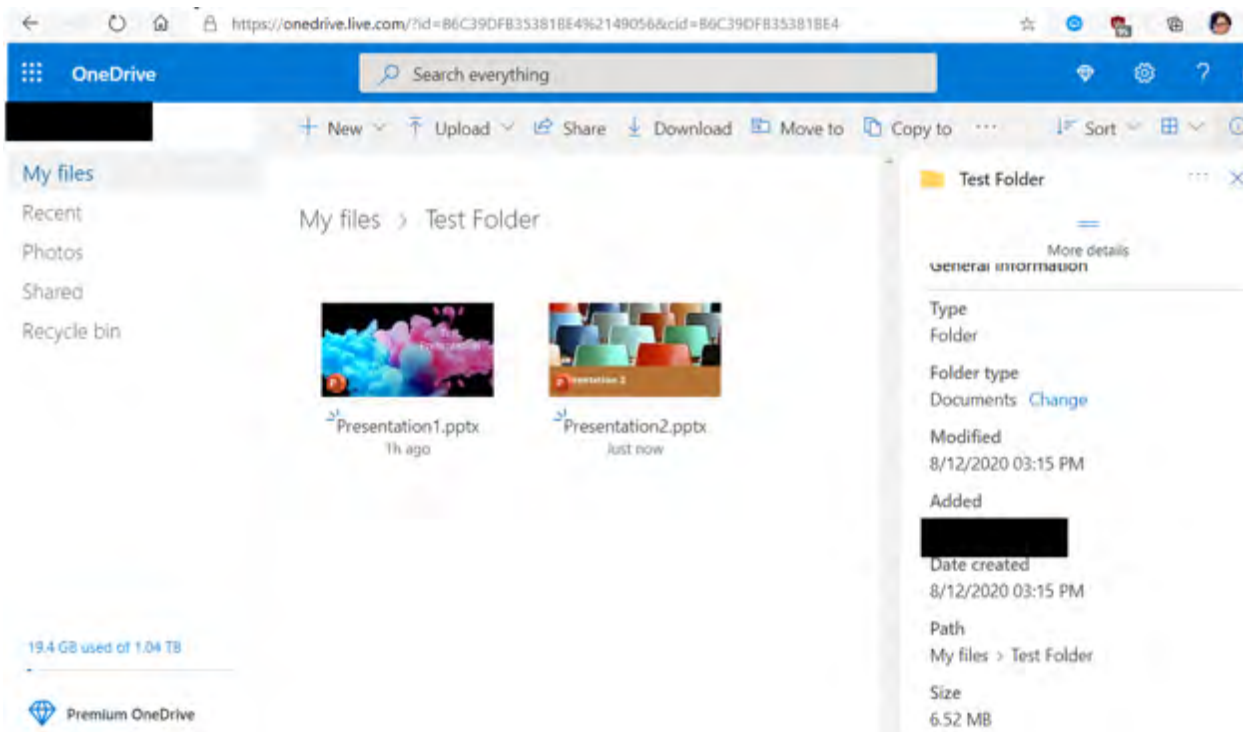
14 The HTML DOM is a standard **object** model and **programming interface** for HTML. It defines:

- 15 • **The HTML elements as objects**
- 16 • **The properties of all HTML elements**
- 17 • The methods to access all HTML elements
- 18 • The **events** for all HTML elements

19 In other words: The HTML DOM is a standard for how to get, change, add, or delete HTML elements.

20 https://www.w3schools.com/js/js_htmlDOM.asp

21 106. The Accused Instrumentality produces a database with a multidimensional array
22 comprising the objects that comprise the web site including data defining, for each object, the
23 object style, an object number, and an indication of the web page that each object is part of. Web
24 sites created with the Accused Instrumentality are stored on Microsoft's servers, in a database
25 that encompasses all documents created by the user.
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107. For example, Accused Instrumentality documents are stored on Azure Storage container databases.

Encryption of data in transit and at rest

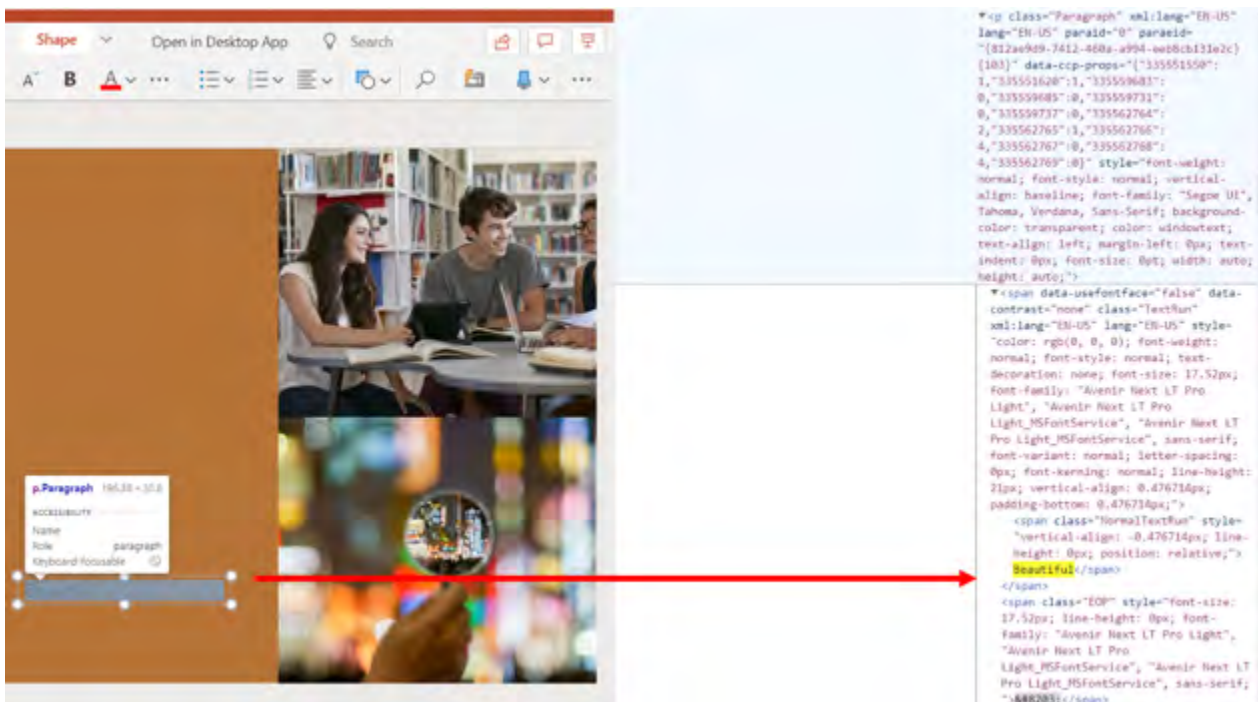
OneDrive uses advanced data-encryption methods between your device and the data center, between servers in the data center, and at rest. At rest, OneDrive uses disk encryption through BitLocker Drive Encryption and file encryption to secure your data. Each file is encrypted with its own encryption key; anything larger than 64 KB is split into individual chunks, each of which has its own encryption key locked in a key store.

Each file chunk is then randomly distributed among Microsoft Azure Storage containers, and a construction map for the complete file is stored in a separate secure content database. For attackers to access the file, they would need all the file chunks, the keys, and the map—a highly improbable task. For more info about this process, see [Data Encryption in OneDrive and SharePoint](#).

Source: <https://docs.microsoft.com/en-us/onedrive/plan-onedrive-enterprise>

108. The object data from a web page is saved in this database, as can be seen in the HTML source. The database includes data defining the object style (such as its class, which includes variables that affect font style, color, etc.), object number, and an indication of the web page that the object is a part of.

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Source: <https://onedrive.live.com/edit.aspx?resid=B6C39DFB35381BE4%2149059&nd=1>

```

<div id="WACViewPanel_EditingElement_WrappingDiv" style="height: 13.801px; width: 118.4px; display:
block; position: absolute; z-index: 32767; visibility: visible; max-height: none; opacity: 1; top:
0px; left: 0px;">
  <div id="WACViewPanel_WACEditing_DescribedByElement" role="description" aria-hidden="true" style=
"visibility: hidden; position: absolute; z-index: -100;">Press F2 to Leave.</div>
  <div id="WACViewPanel_EditingElement" contenteditable="true" spellcheck="false" class="Safari
usehover WACEditing EditMode EditingSurfaceBody" aria-describedby=
"WACViewPanel_WACEditing_DescribedByElement" aria-label="Editing Area" style="overflow: visible;
visibility: visible;">
    <p class="Paragraph" xml:lang="EN-US" lang="EN-US" paraid="0" paraeid="{40af8f46-323c-47b2-8f38-
096112907967}{81}" data-ccp-props="{\"335551550\":1,\"335551620\":1,\"335559683\":0,\"335559685\":
0,\"335559731\":0,\"335559737\":0,\"335562764\":2,\"335562765\":1,\"335562766\":4,\"335562767\":0,\"335562768\":
4,\"335562769\":0}" style="font-weight: normal; font-style: normal; vertical-align: baseline; font-
family: \"Segoe UI\", Tahoma, Verdana, Sans-Serif; background-color: transparent; color: windowtext;
text-align: left; margin-left: 0px; text-indent: 0px; font-size: 0pt;">
      <span data-usefontface="false" data-contrast="none" class="TextRun" xml:lang="EN-US" lang="EN-
US" style="color: rgb(0, 0, 0); font-weight: normal; font-style: normal; text-decoration: none;
font-size: 10.56px; font-family: \"Avenir Next LT Pro Light\", \"Avenir Next LT Pro
Light_MSFontService\", \"Avenir Next LT Pro Light_MSFontService\", sans-serif; font-variant: normal;
letter-spacing: 0px; font-kerning: normal; line-height: 13px; vertical-align: -0.187333px;
padding-top: 0.187333px;">
        <span class="NormalTextRun" style="vertical-align: 0.187333px; line-height: 0px; position:
relative;">Beautiful</span>
      </span>
      <span class="EOP" style="font-size: 10.56px; line-height: 0px; font-family: \"Avenir Next LT Pro
Light\", \"Avenir Next LT Pro Light_MSFontService\", \"Avenir Next LT Pro Light_MSFontService\",
sans-serif;">&#8203;</span>
    </p>
  </div>
</div>

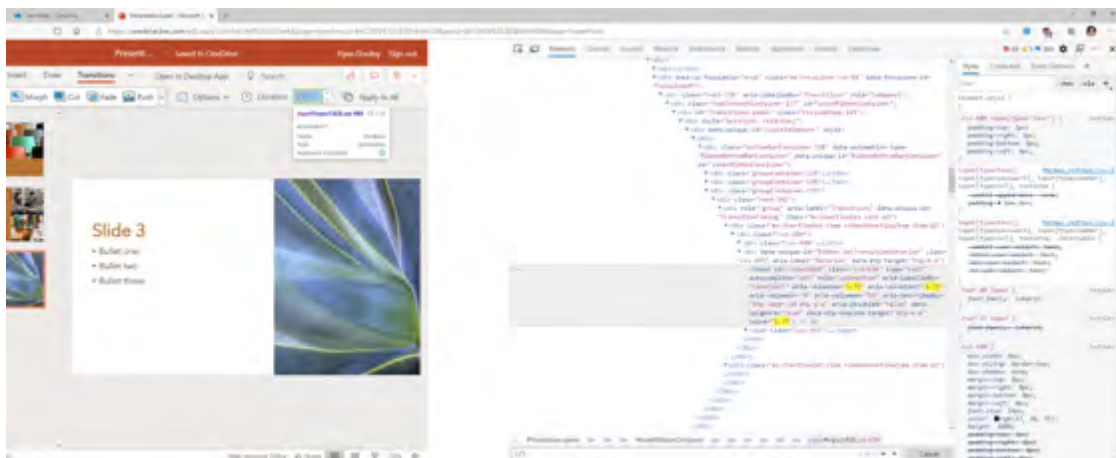
```

Source: <https://onedrive.live.com/edit.aspx?resid=B6C39DFB35381BE4%2149059&nd=1>

```
<form name="frameForm" id="frameForm" target="wac_frame" action="https://powerpoint.officeapps.live.com/pods/ppt.aspx?
wdPodsUrl=https%3A%2F%2Fpowerpoint.officeapps.live.com%2Fpods%2F&wdPodsUrl=https%3A%2F%2Fpowerpoint.officeapps.live.com%2F&fastBoot=true&sw=10
06&sh=525&thPanel=578&ro=false&stc=1&NoAuth=1&fileName=Presentation2.pptx&wdoverrides=devicepixelratio:1.25,RenderGifSlideShow:true&ui=en-
US&rs=en-
US&mssc=1&wdOrigin=Unknown&postMessageToken=jRgQGm6rGk6IcDn1ZShaw.0&wde=pptx&wdp=0&fs=1079711&hid=jRgQGm6rGk6IcDn1ZShaw.0&uih=OneDrive&fileG
etUrl1Bool=true" method="post">...</form>
```

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3 **Source:** <https://onedrive.live.com/edit.aspx?resid=B6C39DFB35381BE4%2149059&nd=1>

4 109. Changes to elements such as “Duration” in the Transitions settings, discussed
5 above, is seen in the HTML, showing that it is a setting saved in the database.



14 **Source:**
15 <https://onedrive.live.com/edit.aspx?cid=b6c39dfb35381be4&page=view&resid=B6C39DFB35381BE4!49059&parId=B6C39DFB35381BE4!49056&app=PowerPoint>

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```
><div class="groupContainer-139">...</div>
><div class="groupContainer-139">...</div>
▼<div class="groupContainer-139">
  ▼<div class="root-142">
    ▼<div role="group" aria-label="Transitions" data-unique-id="
      TransitionTiming" class="ms-OverflowSet root-61">
      ▼<div class="ms-OverflowSet-item ribbonOverflowItem item-62">
        ▼<div class="css-689">
          ▶<div class="css-690">...</div>
          ▼<div data-unique-id="Ribbon-SetTransitionDuration" class="
            css-693" aria-label="Duration" data-ktp-target="ktp-k-e">
            <input id="input1426" class="css-694" type="text"
              autocomplete="off" role="spinbutton" aria-labelledby="
                Label1425" aria-valuenow="1.75" aria-valuetext="1.75"
                aria-valuemin="0" aria-valuemax="59" aria-describedby="
                  ktp-layer-id ktp-k-e" aria-disabled="false" data-
                    lignore="true" data-ktp-execute-target="ktp-k-e"
                    value="1.75"> -- $0
            ▶<span class="css-695">...</span>
```

25 **Source:**
26 <https://onedrive.live.com/edit.aspx?cid=b6c39dfb35381be4&page=view&resid=B6C39DFB35381BE4!49059&parId=B6C39DFB35381BE4!49056&app=PowerPoint> (zoomed in)

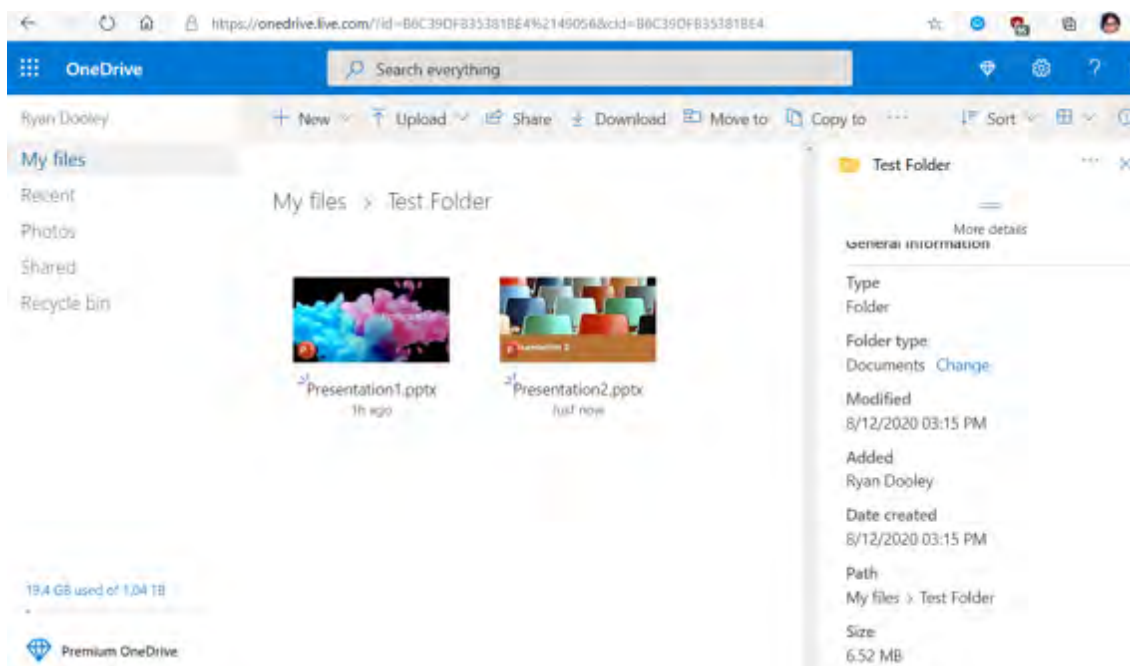
110. The database is provided to a server accessible to a web browser. As described above, Accused Instrumentality documents are stored in a database, and that database is provided to a server accessible to a web browser because the Accused Instrumentality documents are displayed on a web browser.

Encryption of data in transit and at rest

OneDrive uses advanced data-encryption methods between your device and the data center, between servers in the data center, and at rest. At rest, OneDrive uses disk encryption through BitLocker Drive Encryption and file encryption to secure your data. Each file is encrypted with its own encryption key; anything larger than 64 KB is split into individual chunks, each of which has its own encryption key locked in a key store.

Each file chunk is then randomly distributed among Microsoft Azure Storage containers, and a construction map for the complete file is stored in a separate secure content database. For attackers to access the file, they would need all the file chunks, the keys, and the map—a highly improbable task. For more info about this process, see [Data Encryption in OneDrive and SharePoint](#).

Source: <https://docs.microsoft.com/en-us/onedrive/plan-onedrive-enterprise>



Source:

<https://onedrive.live.com/?id=B6C39DFB35381BE4%2149056&cid=B6C39DFB35381BE4>

111. The database is produced such that a web browser with access to a runtime engine is configured to generate the web-site from the objects and style data extracted from the provided database. Modern web browsers all include a runtime engine for generating web-sites. Modern

1 web browsers rely on browser engines, to interpret and execute JavaScript and HTML to render
 2 web pages on a computer. For example, Internet Explorer has relied on Trident (code name for
 3 MSHTML) (which has included the Chakra JavaScript Engine, see
 4 <http://en.wikipedia.org/wiki/MSHTML>); Edge relies on EdgeHTML (which also includes the
 5 Chakra JavaScript Engine, see <https://docs.microsoft.com/en-us/microsoft-edge/dev-guide>)
 6 Safari and Chrome rely on Webkit (which includes WebCore and JavaScript Core, see
 7 <http://en.wikipedia.org/wiki/WebKit>); Firefox relies on Gecko (which includes Spidermonkey,
 8 see <http://www.mozilla.org/projects/technologies.html>).

9 112. As shown above, the browser constructs the website according to the Document
 10 Object Model. Using the Document Object Model, modern browsers parse the HTML code that
 11 comprises web pages into objects.

12 The Document Object Model (DOM) connects web pages to scripts or programming
 13 languages by representing the structure of a document—such as the HTML representing
 14 a web page—in memory. Usually, that means JavaScript, although modeling HTML, SVG,
 15 or XML documents as objects are not part of the core JavaScript language, as such.

16 The DOM represents a document with a logical tree. Each branch of the tree ends in a
 17 node, and each node contains objects. DOM methods allow programmatic access to the
 18 tree. With them, you can change the document's structure, style, or content.

19 https://developer.mozilla.org/en-US/docs/Web/API/Document_Object_Model

20 The HTML DOM is a standard object model and programming interface for HTML. It defines:

- 21 • The HTML elements as objects
- 22 • The properties of all HTML elements
- 23 • The methods to access all HTML elements
- 24 • The events for all HTML elements

25 In other words: The HTML DOM is a standard for how to get, change, add, or delete HTML elements.

26 https://www.w3schools.com/js/js_htmlDOM.asp

27 113. Microsoft was made aware of the '168 patent and its infringement thereof at least
 28 as early as July 27, 2019 when Express Mobile provided notice of Microsoft's infringement of
 the '168 patent to Dev Stahlkopf, General Counsel of Microsoft. Since at least the time
 Microsoft received notice, Microsoft has induced others to infringe at least one claim of the '168
 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful

1 blindness, actively aiding and abetting others to infringe, including but not limited to Microsoft's
2 clients, customers, and end users, whose use of the Accused Instrumentality constitutes direct
3 infringement of at least one claim of the '168 patent. In particular, Microsoft's actions that aid
4 and abet others such as customers and end users to infringe include advertising and distributing
5 the Accused Instrumentality and providing instruction materials, training, and services regarding
6 the Accused Instrumentality. microsoft.com, support.microsoft.com,

7 <https://support.microsoft.com/en-us/office>, <https://support.microsoft.com/en-us/microsoft-365>.

8 Microsoft has engaged in such actions with specific intent to cause infringement or with willful
9 blindness to the resulting infringement because Microsoft has had actual knowledge of the '168
10 patent and knowledge that its acts were inducing infringement of the '168 patent since at least
11 the date Microsoft received notice that such activities infringed the '168 patent.

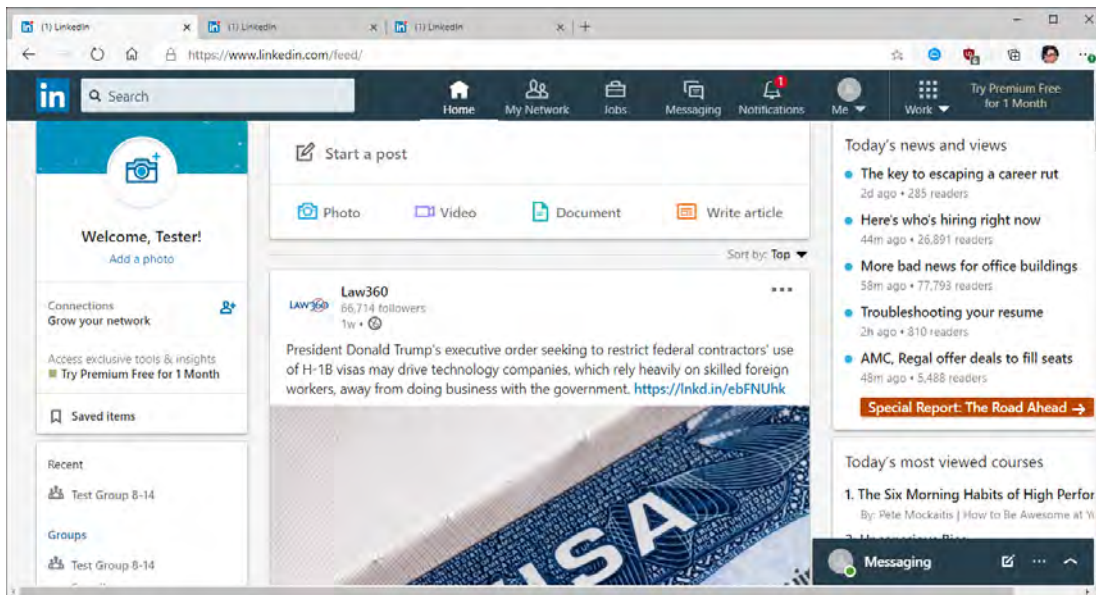
12 114. Microsoft is liable as a contributory infringer of the '168 patent under 35 U.S.C. §
13 271(c) by offering to sell, selling and importing into the United States website or web page
14 authoring tools to be especially made or adapted for use in an infringement of the '168 patent. The
15 Accused Instrumentality is a material component for use in practicing the '168 patent, is
16 specifically made and is not a staple article of commerce suitable for substantial non-infringing
17 use.

18 115. Upon information and belief, since the date of its receipt of notice, Microsoft's
19 infringement of the '168 patent has been willful and intentional under the standard announced in
20 *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least July
21 27, 2019, Microsoft has willfully infringed the '168 patent by refusing to take a license and
22 continuing to make, use, test, sell, license, and/or offer for sale/license the Accused Instrumentality.
23 Microsoft has been aware that it infringes the '168 patent since at least July 27, 2019 and instead
24 of taking a license, Microsoft has opted to make the business decision to "efficiently infringe"
25 the '168 patent. In doing so, Microsoft willfully infringed the '168 Patent.

26 116. Microsoft's infringement has damaged and injured and continues to damage and
27 injure Express Mobile.

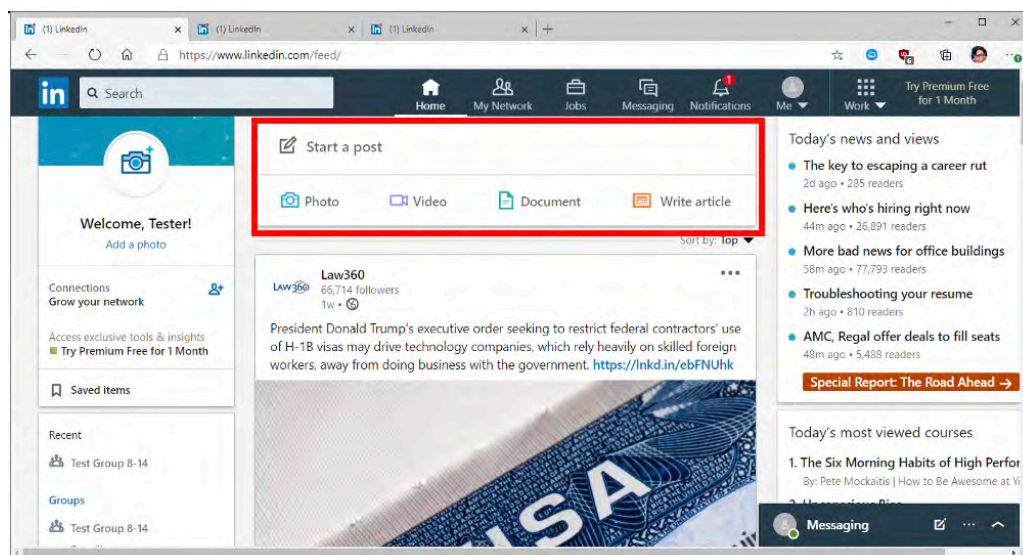
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1 117. LinkedIn provides a system for assembling a web site (the “Accused
2 Instrumentality”). Created web sites are available through LinkedIn.com.



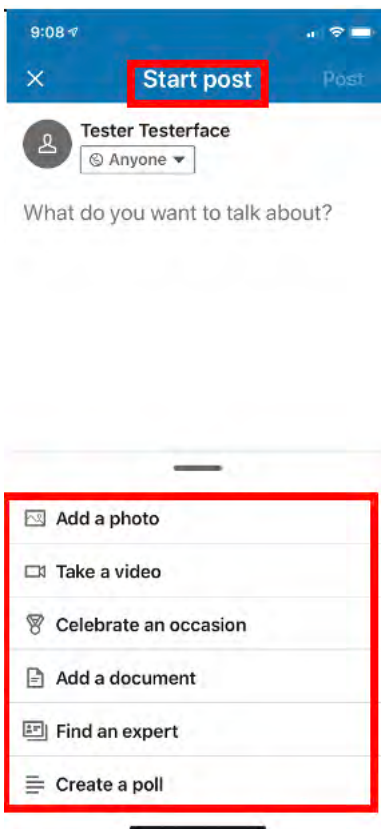
<https://www.linkedin.com/feed/>

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14 118. The Accused Instrumentality comprises a build engine. For example, users begin
15 the web page creation in the LinkedIn build engine by adding content such as text, pictures, or
16 videos to LinkedIn, either through a web browser or through the LinkedIn App on iOS or Android.



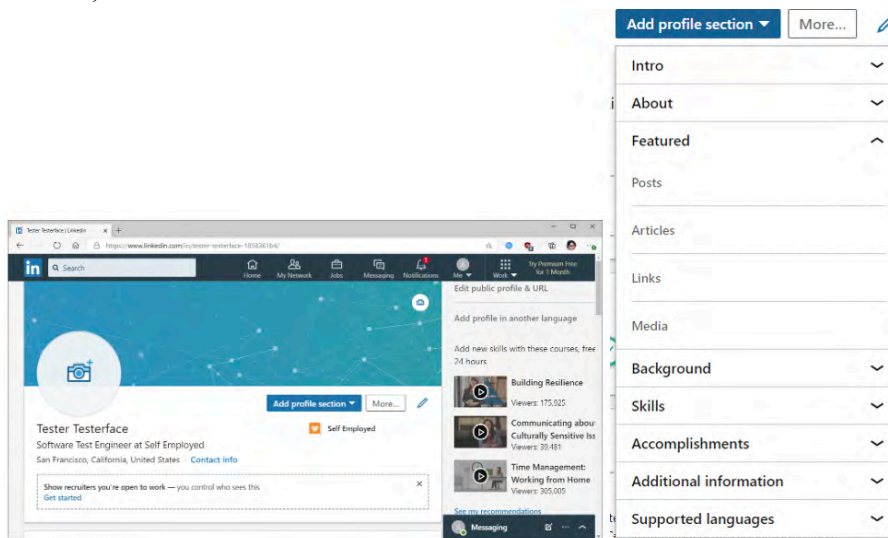
26 <https://www.linkedin.com/feed/>

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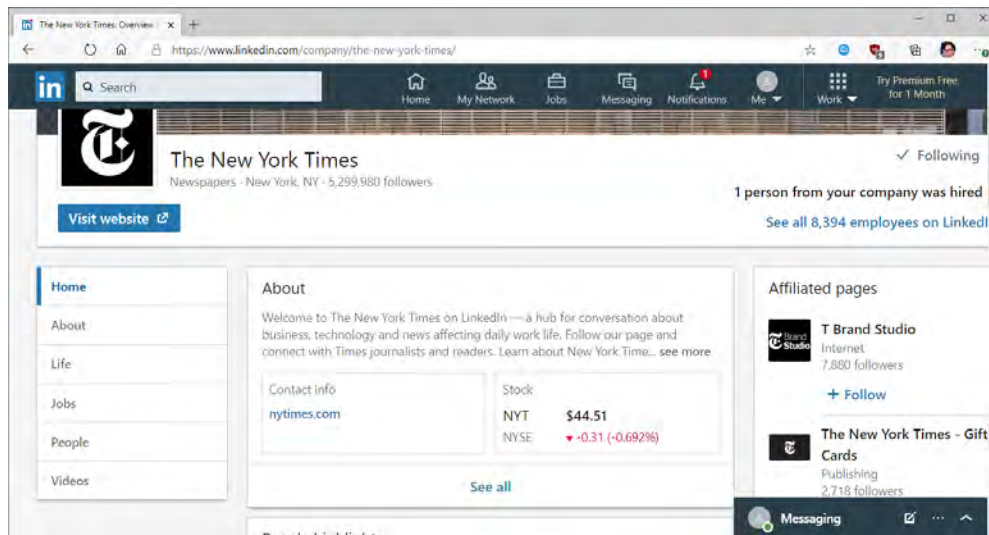


LinkedIn App on iPhone XR

119. The Accused Instrumentality accepts user input to create a web site, the web site comprising a plurality of web pages, each web page comprising a plurality of objects, and accepts user input to associate a style with objects of the plurality of web pages. A user creates a profile, which is a web site. Creating this web site involves user input, such as adding profile sections, descriptions of work, and more.

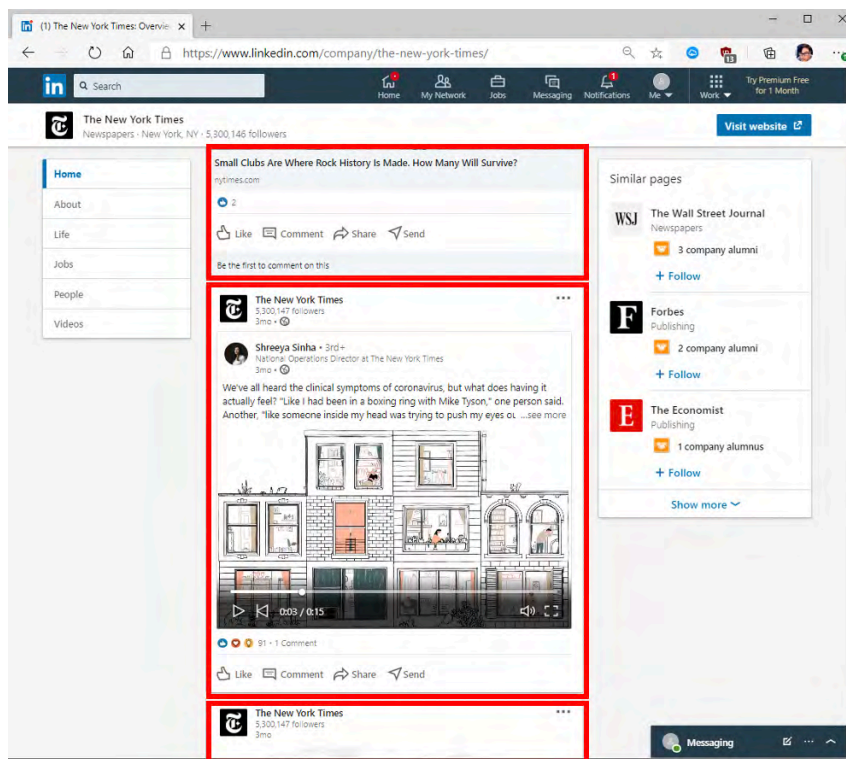


1 120. A page with many such elements can be seen, for example, at the New York Times’
 2 LinkedIn page.



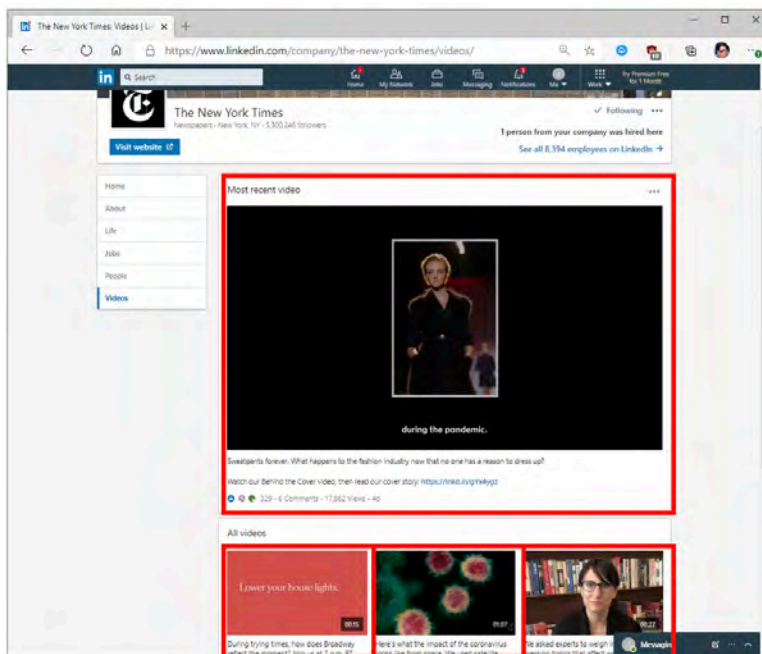
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11 <https://www.linkedin.com/company/the-new-york-times/>

12 121. The website comprises a plurality of web pages. For example, the New York Times
 13 includes at least its main page and sub-pages such as “Videos,” as shown below. Each web page
 14 comprises a plurality of objects, such as posts or videos.



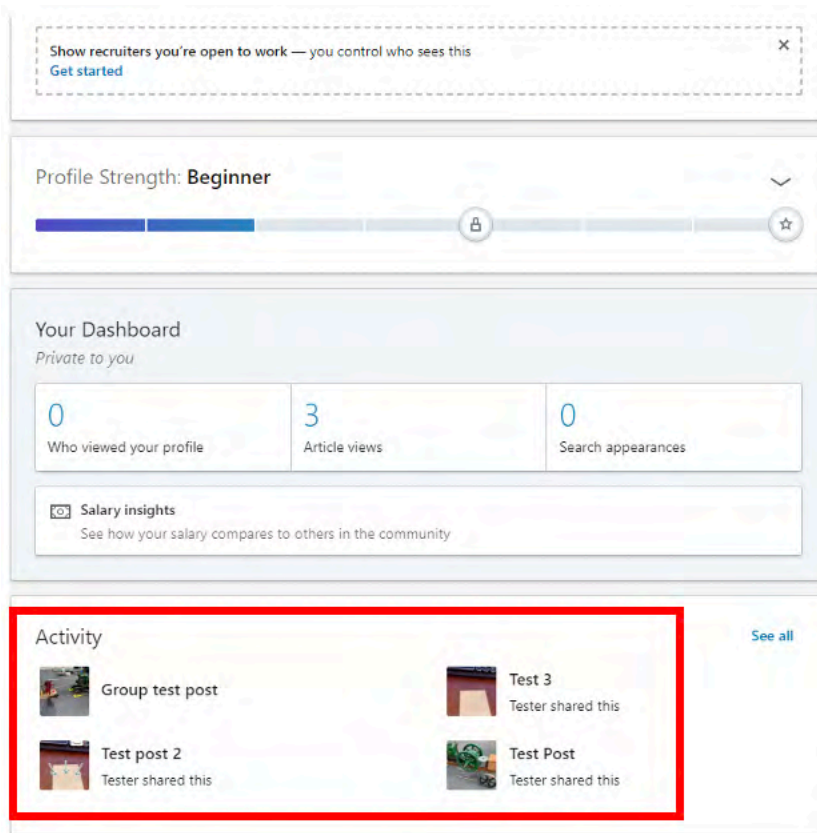
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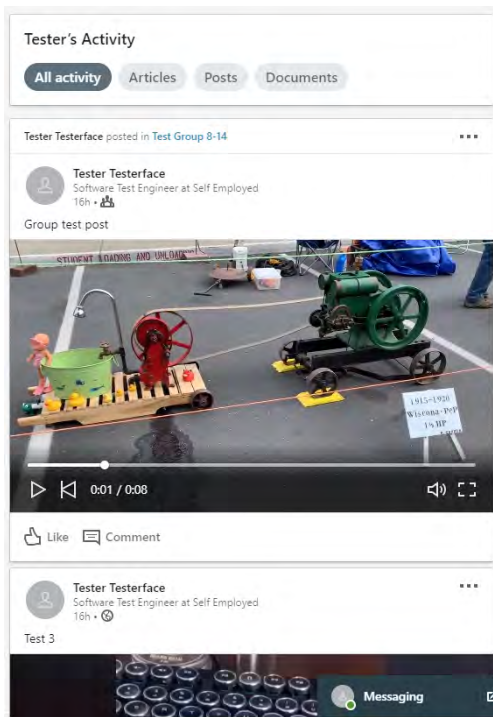
<https://www.linkedin.com/company/the-new-york-times/videos/>

122. Similarly, user profiles allow videos to be uploaded. In this profile, a user may create several posts, each with a video.



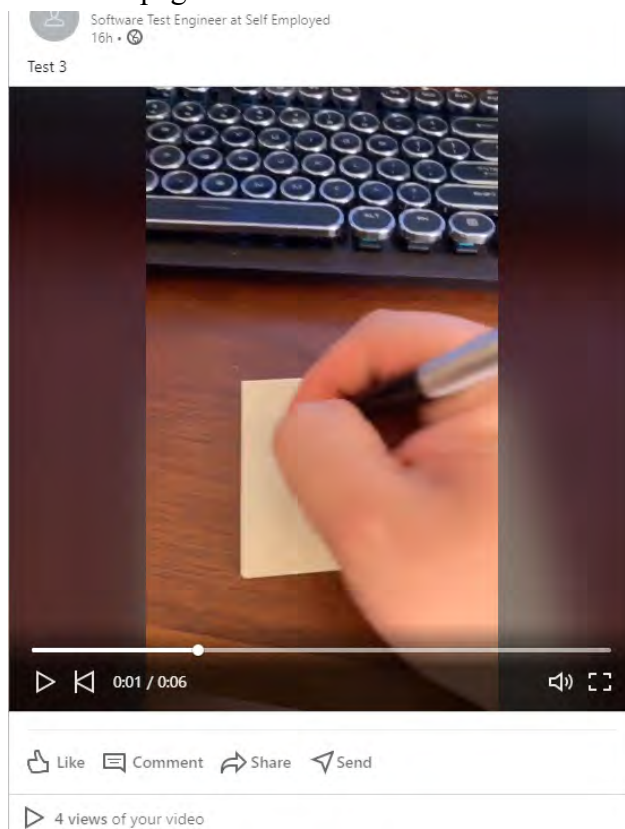
<https://www.linkedin.com/in/tester-testerface-1858361b4/>

123. Outside of a profile, this can also be seen in the user's activity feed.



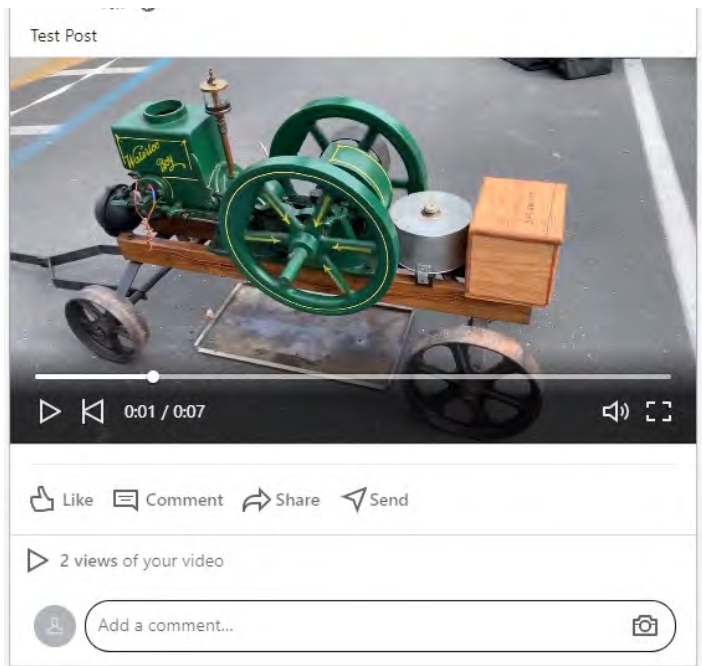
<https://www.linkedin.com/in/tester-testeface-1858361b4/detail/recent-activity/>

124. Each post is a web page.



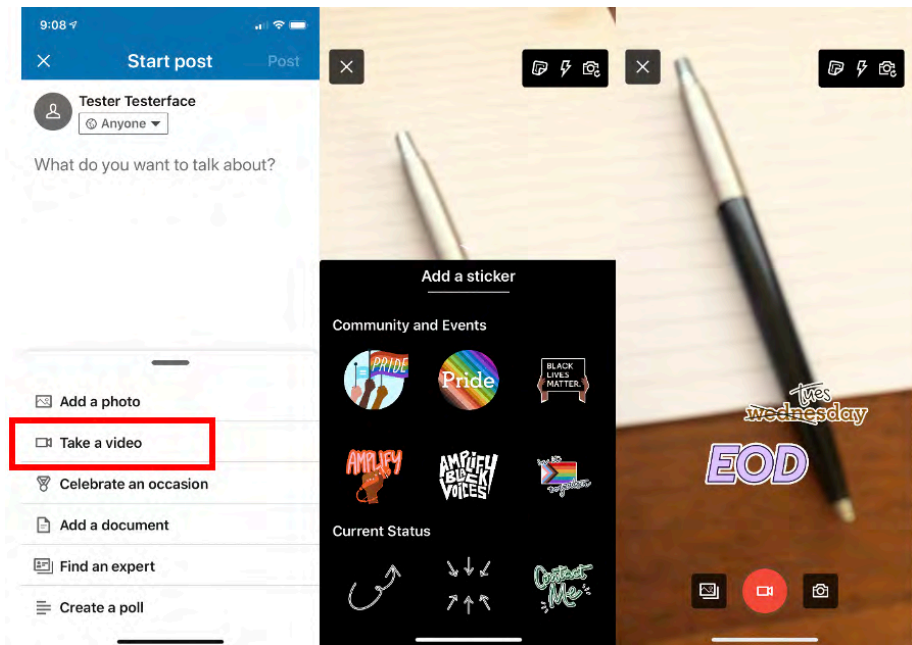
<https://www.linkedin.com/feed/update/urn%3Ali%3Aactivity%3A6700209434850861056/>

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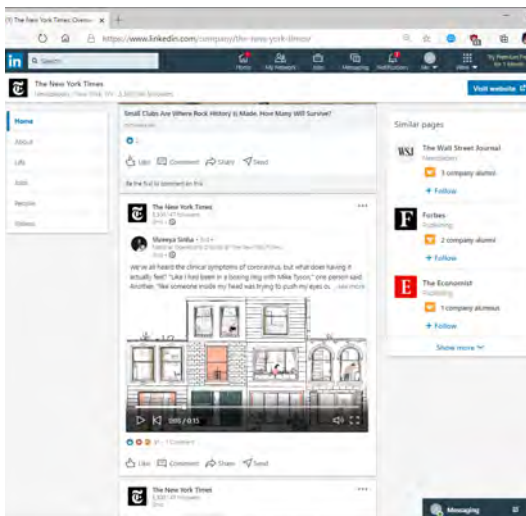
<https://www.linkedin.com/feed/update/urn%3Ali%3Aactivity%3A6700208089058066432/>

125. The Accused Instrumentality accepts user input to associate a style with objects of the plurality of web pages. For example, for every video, a user may film for a certain amount of time and may also add elements which change the style of the video, such as stickers.

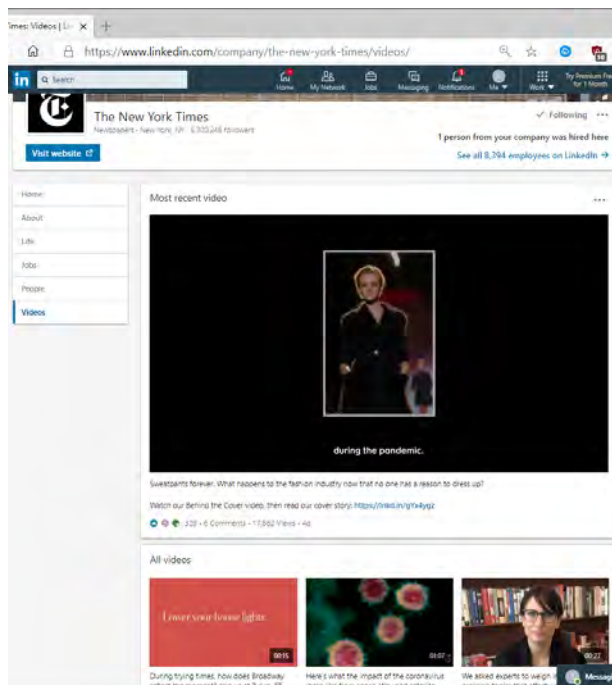


LinkedIn App on iPhone XR.

1 126. Each web page comprises at least one button object or at least one image object.
 2 As described above, the main page and the videos page of the New York Times both comprise at
 3 least one image object.



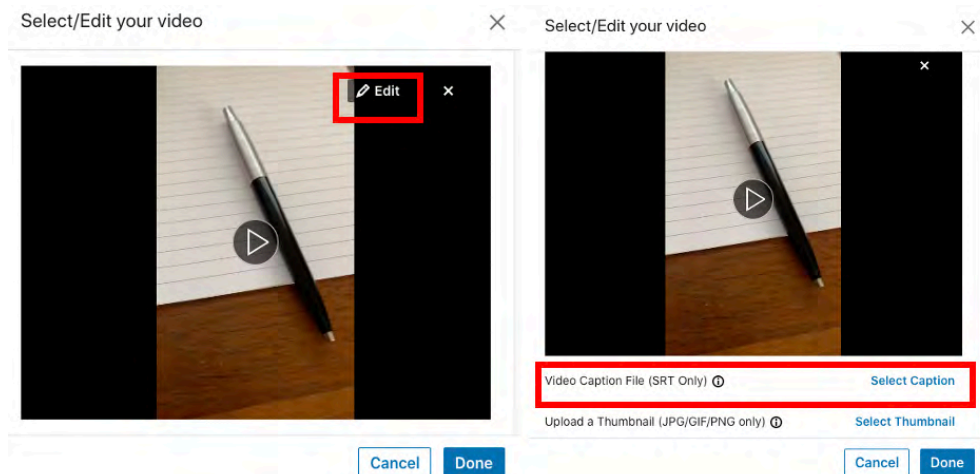
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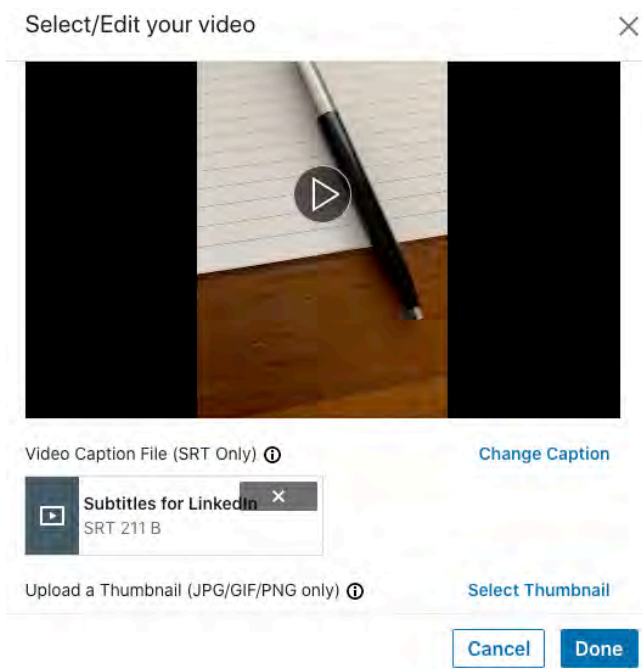
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25 127. The at least one button object or at least one image object is associated with a style
 26 that includes values defining transformations and time lines for the at least one button object or at
 27 least one image object. For example, videos may be associated with a set of subtitles (style) that
 28 includes values defining transformations and time lines for the video. For example, a user may

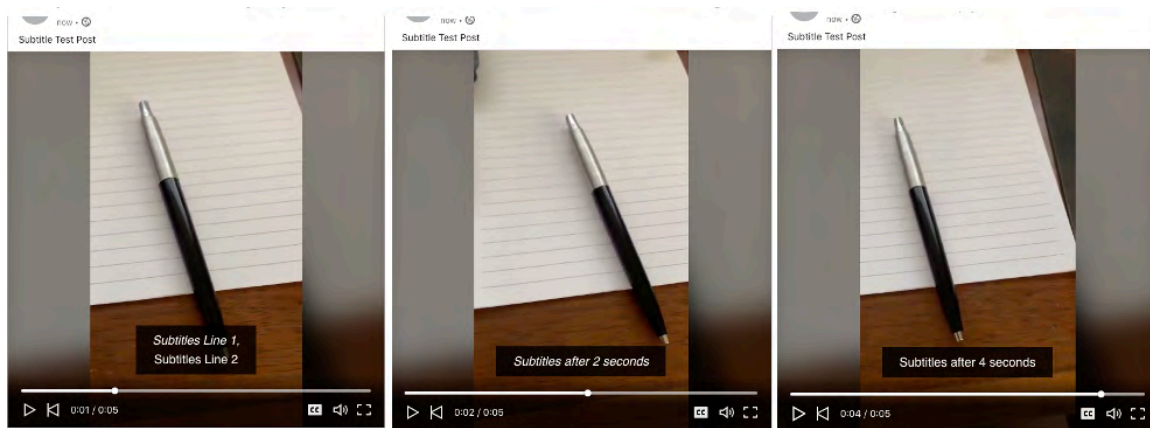
1 click the “edit” button on a video he or she is uploading to a post, which will cause additional
 2 options to appear, such as the ability to add a “Video Caption File.”



11 128. When the user clicks “Select Caption,” they may add a subtitles file to the video
 12 and submit the post.



24 129. The post will then display subtitles within the video according to the subtitle file,
 25 as shown below.



130. Because the subtitles are displayed within the video, the subtitle file is a style that transforms the appearance of the video. The subtitle file includes time stamps for when subtitles are displayed and changed, defining transformations and timelines for the video.

131. Each web page is defined entirely by each of the plurality of objects comprising that web page and the style associated with the object.

The Document Object Model (DOM) connects web pages to scripts or programming languages by representing the structure of a document—such as the HTML representing a web page—in memory. Usually, that means JavaScript, although modeling HTML, SVG, or XML documents as objects are not part of the core JavaScript language, as such.

The DOM represents a document with a logical tree. Each branch of the tree ends in a node, and each node contains objects. **DOM methods allow programmatic access to the tree. With them, you can change the document's structure, style, or content.**

https://developer.mozilla.org/en-US/docs/Web/API/Document_Object_Model

The HTML DOM is a standard **object** model and **programming interface** for HTML. It defines:

- **The HTML elements as objects**
- **The properties of all HTML elements**
- The methods to access all HTML elements
- The **events** for all HTML elements

In other words: The HTML DOM is a standard for how to get, change, add, or delete HTML elements. https://www.w3schools.com/js/js_htmlDOM.asp

132. The Accused Instrumentality is configured to produce a database with a multidimensional array comprising the objects that comprise the web site including data defining, for each object, the object style, an object number, and an indication of the web page that each object is part of. The Accused Instrumentality uses several databases, such as Espresso and Oracle.

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Espresso is LinkedIn's online, distributed, fault-tolerant NoSQL database that currently powers approximately 30 LinkedIn applications including Member Profile, InMail (LinkedIn's member-to-member messaging system), portions of the Homepage and mobile applications, etc. Espresso has a large production footprint at LinkedIn with over a dozen clusters in use. It hosts some of the most heavily accessed and valuable datasets at LinkedIn serving millions of records per second at peak. It is the source of truth for hundreds of terabytes (not counting replicas) of data.

<https://engineering.linkedin.com/espresso/introducing-espresso-linkedins-hot-new-distributed-document-store>

To meet the needs of online applications, LinkedIn traditionally used Relational Database Management Systems (RDBMSs) such as Oracle and key-value stores such as Voldemort - both serving different use cases. Much of LinkedIn requires a

<https://engineering.linkedin.com/espresso/introducing-espresso-linkedins-hot-new-distributed-document-store>

UGC Post API

07/17/2019 • 20 minutes to read • 

UGC Post is an upcoming API that will eventually replace the Shares API. UGC Post is currently best suited for creating and fetching video posts. The Shares API does not support video. Use the UGC Post API to create video content for organic posts and video ads. More functionality will be soon be added to the UGC Post API.

As of now, you cannot retrieve the actual video content of a video post. This feature will be available soon.

Organic statistics are available. For more detail, see [Organization Share Statistics](#)

<https://docs.microsoft.com/en-us/linkedin/marketing/integrations/community-management/shares/ugc-post-api>

133. From the available fields in the API, the Accused Instrumentality shows that its databases have multidimensional arrays comprising the objects that comprise the web site (such as videos) including data defining, for each object, the object style (such as the “media,” “mediaOverlay,” and “length” fields), an object number (such as the “id” field), and an indication of the web page that each object is part of (such as the “primaryLandingPageUrl” field).

id	Unique id for this object. Can contain more urn types in the future.	ugcPostUrn or shareUrn	Yes
----	--	------------------------	-----

ShareContent

Field	Sub-Field	Description	Format	Required
media		The media shared in this share. Can be videos, images, or articles.	Array of ShareMedia	Yes
primaryLandingPageUrl		The main landing page URL of the share.	String	Optional
media		The URN of the media shared. Can be IngestedVideoMetadata Urn, IngestedImageMetadata Urn, IngestedArticleMetadata Urn, IngestedContent Urn, IngestedRichMedia Metadata Urn, DigitalmediaAsset Urn, or Content Urn.	Urn	Yes
mediaOverlay		An overlay associated with a media(video, image etc).		Optional
	overlay	Union of possible MediaOverlay model, could be media frame, stickers etc.	MediaFrame object	

Attribute

Field	Sub-Field	Description	Format
length		The length of the range within the referenced ordered collection.	int
start		Starting position of the range within the referenced ordered collection.	int
value		The value of the attribute that applies to given range.	Union [MemberAttributedEntity, CompanyAttributedEntity, SchoolAttributedEntity]

<https://docs.microsoft.com/en-us/linkedin/marketing/integrations/community-management/shares/ugc-post-api>

134. The Accused Instrumentality provides the database to a server accessible to a web browser. As described above, the Accused Instrumentality API connects to LinkedIn’s Espresso and Oracle databases, and those databases are provided to a server accessible to a web browser because LinkedIn posts are displayed on a web browser.

135. The databases produced by the Accused Instrumentality enable a web browser with access to a runtime engine to generate the web-site from the objects and style data extracted from the provided databases. Modern web browsers all include a runtime engine for generating web-sites. Modern web browsers rely on browser engines, to interpret and execute JavaScript and HTML to render web pages on a computer. Internet Explorer has relied on Trident (code name

1 for MSHTML) (which has included the Chakra JavaScript Engine, see
 2 <http://en.wikipedia.org/wiki/MSHTML>); Edge relies on EdgeHTML (which also includes the
 3 Chakra JavaScript Engine, see <https://docs.microsoft.com/en-us/microsoft-edge/dev-guide>) Safari
 4 and Chrome rely on Webkit (which includes WebCore and JavaScript Core, see
 5 <http://en.wikipedia.org/wiki/WebKit>); Firefox relies on Gecko (which includes Spidermonkey, see
 6 <http://www.mozilla.org/projects/technologies.html>).

7 136. The browser constructs the website according to the Document Object Model.
 8 Using the Document Object Model, modern browsers parse the HTML code that comprises web
 9 pages into objects.

10 The Document Object Model (DOM) connects web pages to scripts or programming
 11 languages by representing the structure of a document—such as the HTML representing
 12 a web page—in memory. Usually, that means JavaScript, although modeling HTML, SVG,
 or XML documents as objects are not part of the core JavaScript language, as such.

13 The DOM represents a document with a logical tree. Each branch of the tree ends in a
 14 node, and each node contains objects. **DOM methods allow programmatic access to the
 tree. With them, you can change the document's structure, style, or content.**

15 https://developer.mozilla.org/en-US/docs/Web/API/Document_Object_Model

16 The HTML DOM is a standard **object** model and **programming interface** for HTML. It defines:

- 17 • **The HTML elements as objects**
- 18 • **The properties of all HTML elements**
- 19 • The methods to access all HTML elements
- 20 • The **events** for all HTML elements

In other words: The HTML DOM is a standard for how to get, change, add, or delete HTML elements.
 21 https://www.w3schools.com/js/js_htmlDOM.asp

22 137. LinkedIn was made aware of the '168 patent and its infringement thereof at least
 23 as early as October 26, 2020 when Express Mobile provided notice of LinkedIn's infringement
 24 of the '168 patent to Blake Lawit, SVP and General Counsel of LinkedIn. After at least the time
 25 LinkedIn received notice, LinkedIn induced others to infringe at least one claim of the '168
 26 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful
 27 blindness, actively aided and abetted others to infringe, including but not limited to LinkedIn's
 28 clients, customers, and end users, whose use of the Accused Instrumentality constituted direct

1 infringement of at least one claim of the '168 patent. In particular, LinkedIn's actions that aided
2 and abetted others such as customers and end users to infringe included advertising and
3 distributing the Accused Instrumentality and providing instruction materials, training, and
4 services regarding the Accused Instrumentality. *See e.g.*, www.linkedin.com;
5 <https://www.linkedin.com/help/linkedin?lang=en>; [https://docs.microsoft.com/en-](https://docs.microsoft.com/en-us/linkedin/marketing/integrations/community-management/shares/ugc-post-api)
6 [us/linkedin/marketing/integrations/community-management/shares/ugc-post-api](https://docs.microsoft.com/en-us/linkedin/marketing/integrations/community-management/shares/ugc-post-api);
7 [https://engineering.linkedin.com/espresso/introducing-espresso-linkedins-hot-new-distributed-](https://engineering.linkedin.com/espresso/introducing-espresso-linkedins-hot-new-distributed-document-store)
8 [document-store](https://engineering.linkedin.com/espresso/introducing-espresso-linkedins-hot-new-distributed-document-store); and related domains and subdomains. LinkedIn engaged in such actions with
9 specific intent to cause infringement or with willful blindness to the resulting infringement
10 because LinkedIn had actual knowledge of the '168 patent and knowledge that its acts were
11 inducing infringement of the '168 patent since at least the date Microsoft received notice that
12 such activities infringed the '168 patent.

13 138. LinkedIn is liable as a contributory infringer of the '168 patent under 35 U.S.C. §
14 271(c) by having offered to sell, sold and imported into the United States website or web page
15 authoring tools to be especially made or adapted for use in an infringement of the '168 patent.
16 The Accused Instrumentality is a material component for use in practicing the '168 patent, is
17 specifically made and is not a staple article of commerce suitable for substantial non-infringing
18 use.

19 139. LinkedIn's infringement has damaged and injured and continues to damage and
20 injure Express Mobile.

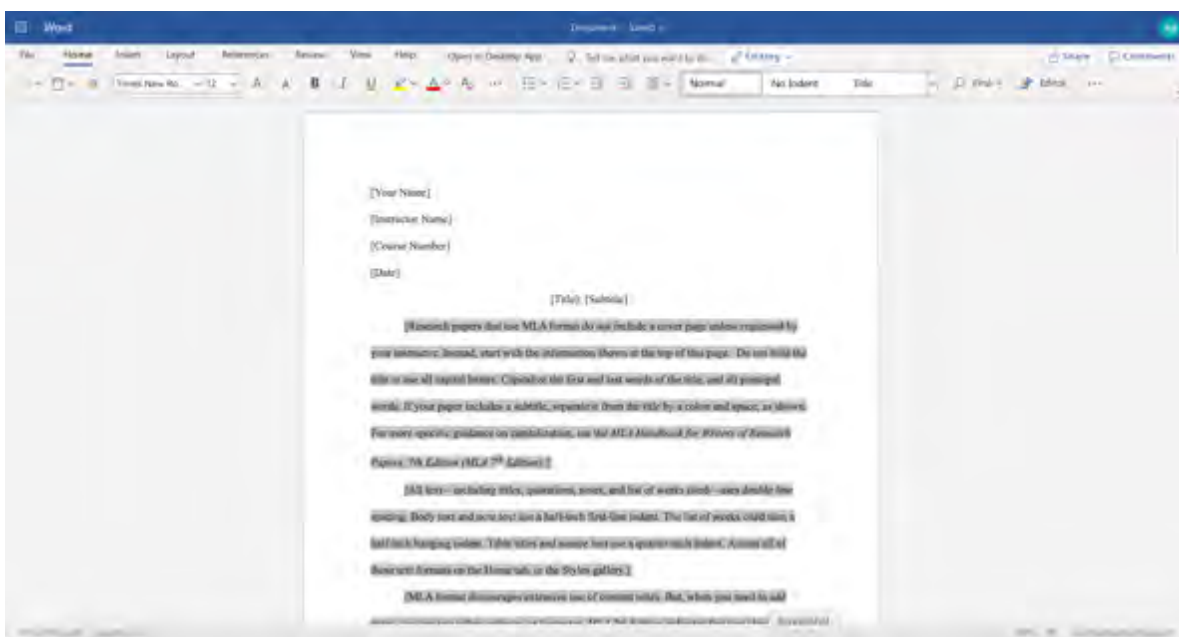
21 **COUNT III - INFRINGEMENT OF U.S. PATENT NO. 9,928,044**

22 140. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 139
23 above.

24 141. Microsoft has manufactured, used, sold, offered to sell and/or provided and
25 continues to manufacture, use, sell, offer for sale and/or provide a browser-based version of
26 Microsoft Office Web App that comprises a system to generate code to provide content on a
27 display of a device (the "Accused Instrumentality") that infringes, either literally or under the
28 doctrine of equivalents, one or more claims of the '044 patent in violation of 35 U.S.C. § 271(a).

1 142. Upon information and belief, Microsoft has directly infringed at least claim 1 of
 2 the '044 patent through its Accused Instrumentality that generates code to provide content on a
 3 display of a device.

4 143. The Accused Instrumentality is a system for generating code to provide content
 5 on the display of a device for each of its users. The Accused Instrumentality server delivers
 6 browser-based versions of Word, PowerPoint, Excel, and OneNote. For example, the Word Web
 7 App (shown below) generates code to provide the content below on the display of a user device,
 8 such as desktop computers, laptops, tablets, and mobile phones.



How SharePoint 2013 uses Office Web Apps Server for viewing and editing Office documents

When used with SharePoint Server 2013, Office Web Apps Server provides updated versions of Word Web App, Excel Web App, PowerPoint Web App, and OneNote Web App. Users can view and, in some cases, edit Office documents in SharePoint libraries by using a supported web browser on computers and on many mobile devices, such as Windows Phones, iPhones, iPads, and Windows 8 tablets. Among the many new features in Office Web Apps, improved touch support and editing capabilities enable users of iPads and Windows 8 tablets to enjoy editing and viewing Office documents directly from their devices.

The following illustration summarizes the viewing and editing capabilities of Office Web Apps on different kinds of devices.

Viewing and editing capabilities of Office Web Apps

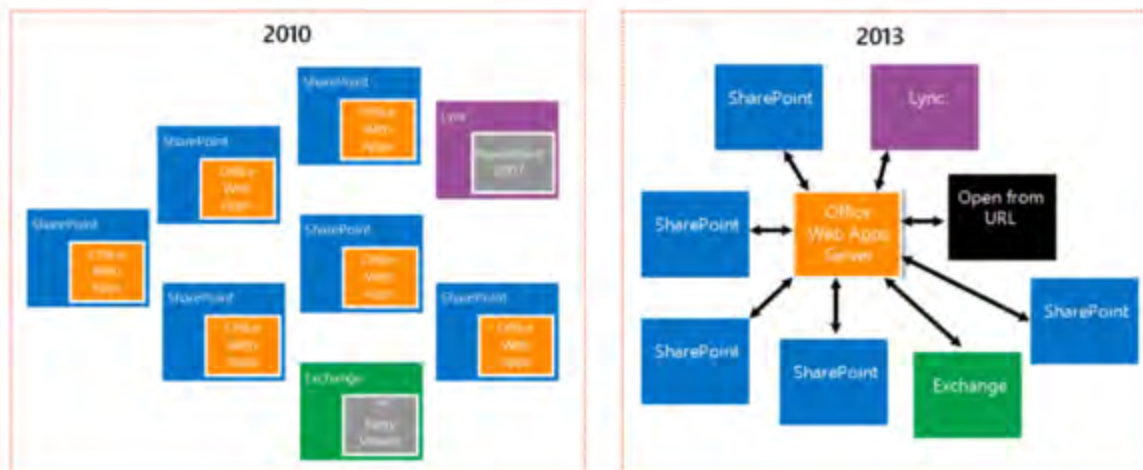


Source: <https://docs.microsoft.com/en-us/webappsserver/office-web-apps-server-overview>

144. The Accused Instrumentality includes memory to store user selections and other information relating to a user’s web site, web pages, and the web components or elements that are intended to be displayed.

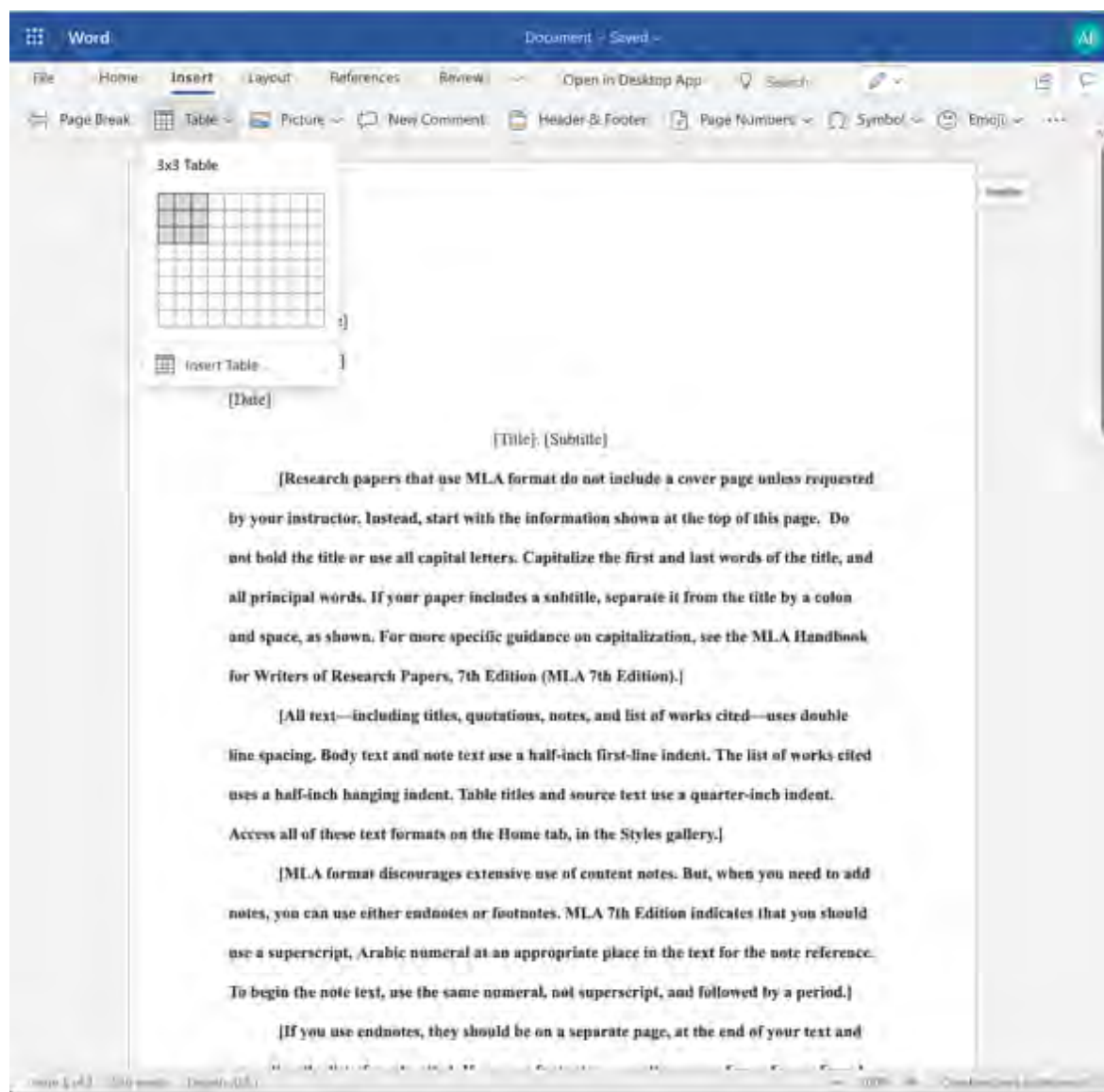
Differences between the Office Web Apps deployment models

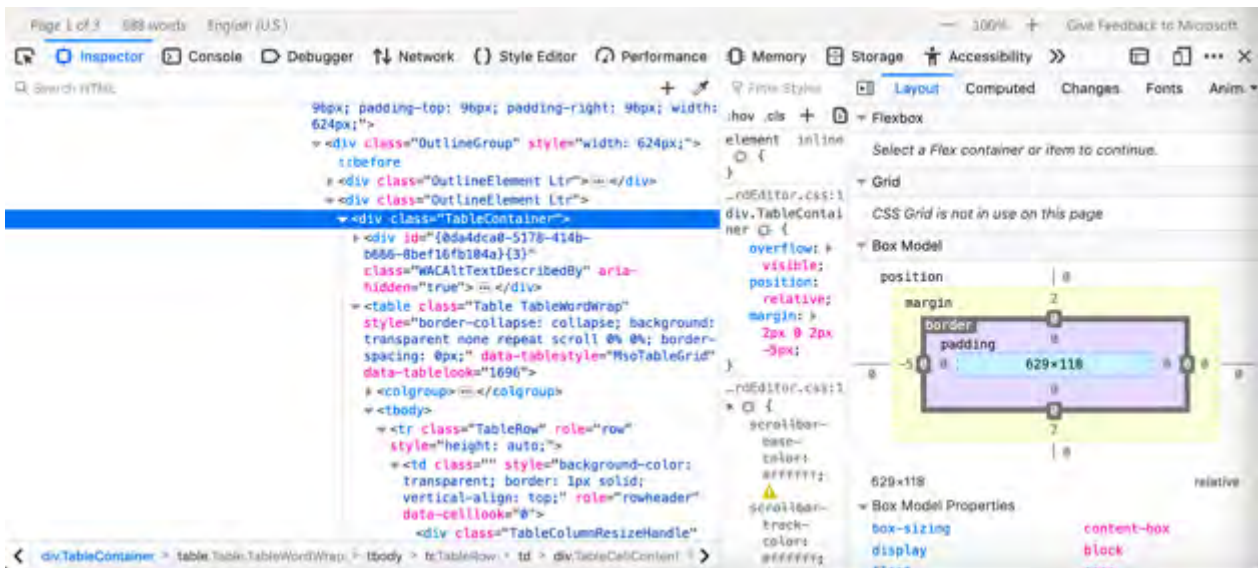
Office Web Apps then and now



Source: <https://docs.microsoft.com/en-us/webappsserver/office-web-apps-server-overview>

1 145. The various menus in the Accused Instrumentality include symbolic names for web
 2 components such as “Table” and “TableContainer,” a component that can be evoked by the
 3 corresponding symbolic name. The Table component is related to table inputs and display outputs
 4 of the Accused Instrumentality web service, obtained over a network by the user. The component’s
 5 name is a character string that is not a persistent address or pointer to an output value. The Table
 6 component is associated with a data format class type corresponding to a subclass of UI objects
 7 (in this case, Tables in a Word document), and where this symbolic name has a preferred UI object
 8 (the Table).

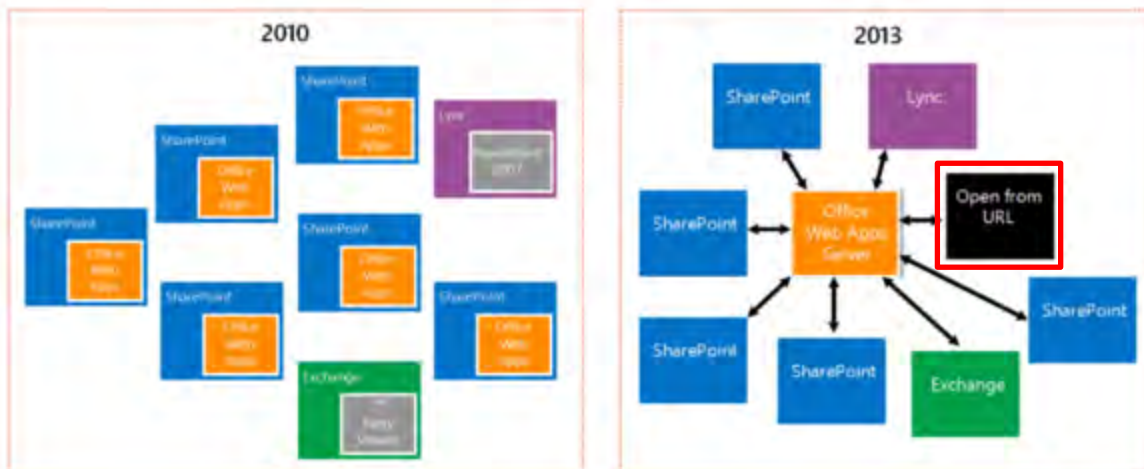




146. When a user accesses a document via the Accused Instrumentality, that document has a persistent address that is stored in the database to allow users to return to and consistently access or share a particular document.

Differences between the Office Web Apps deployment models

Office Web Apps then and now



How Office Web Apps Server enables users to view Office files in shared folders and websites by using Online Viewers

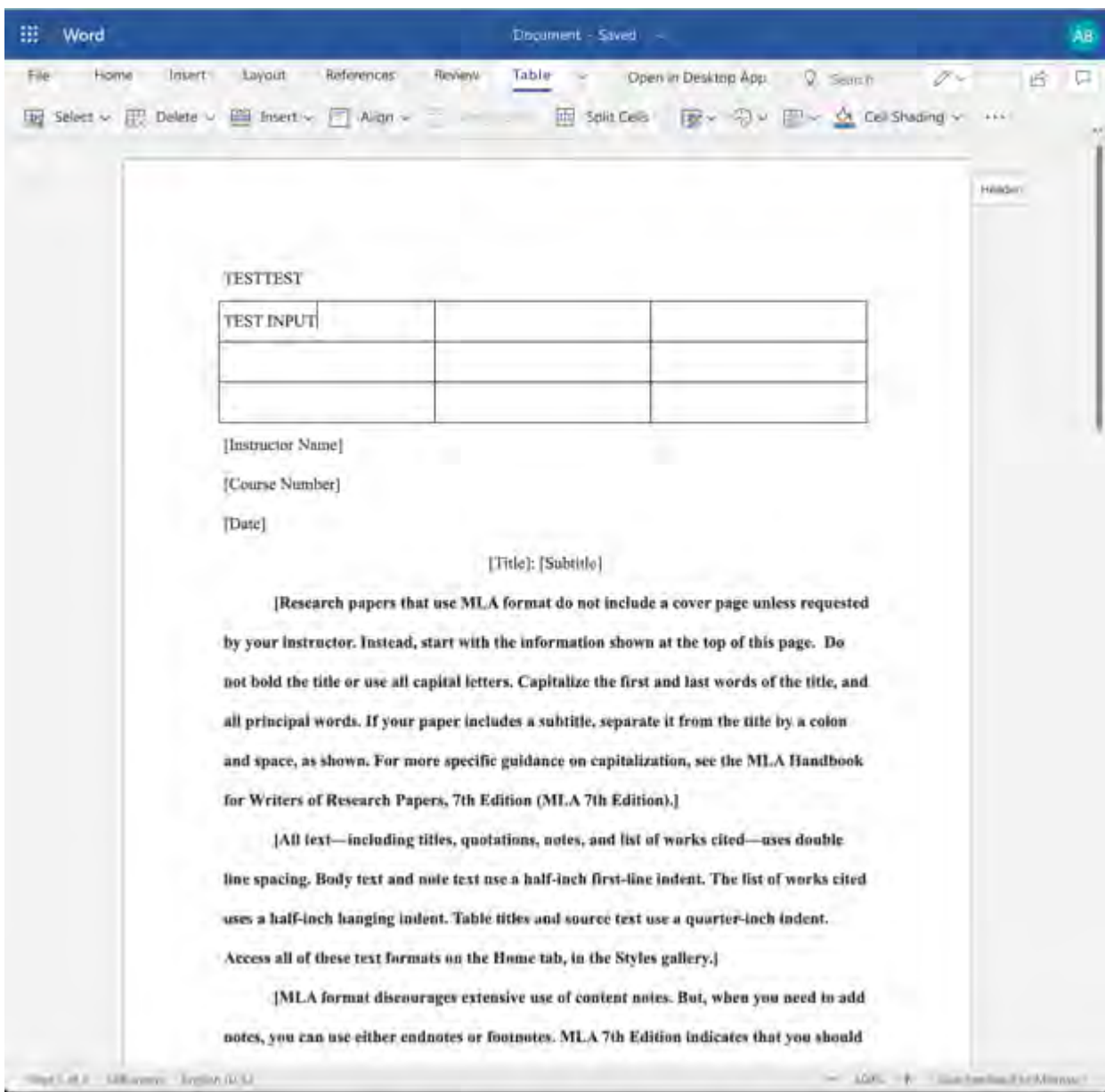
Online Viewers enable users to use a web browser to view Excel, PowerPoint and Word files that are stored on web servers or shared folders in an organization. Users can conveniently view Office files in a web browser without having to open a separate application. In addition, Online Viewers do not require Office 2013 to be installed on users' computers. Online Viewers also generate the code that is required to link or embed the URL inside a webpage. You can use Online Viewers within your Intranet, or on the Internet.

Source: <https://docs.microsoft.com/en-us/webappsserver/office-web-apps-server-overview>

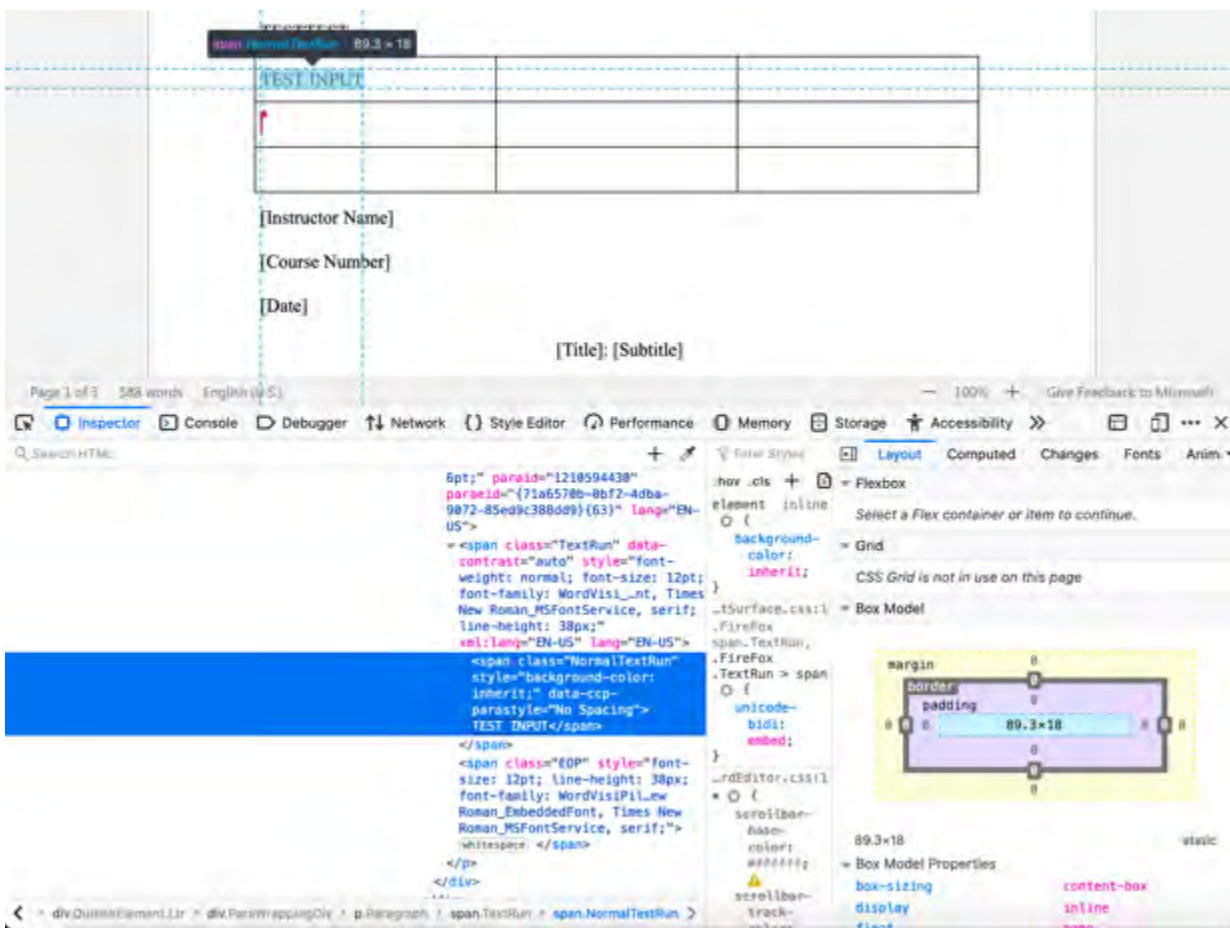
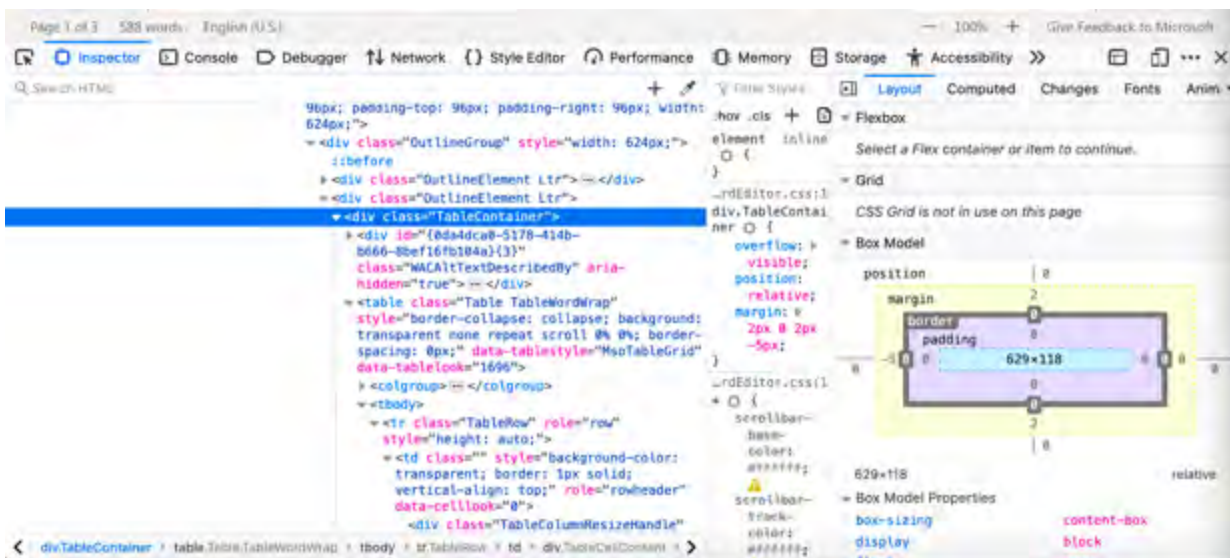
147. The Accused Instrumentality has an authoring tool configured to define a UI object for presentation on the display. In the example below, the defined UI object that is selected is a Table, which is a web component of the Accused Instrumentality. The Table's contents and settings comprise an input of the web service, and the resulting output to the user and associated parameters are an output of the web service. In this case, the defined UI object was selected by a user of the authoring tool.



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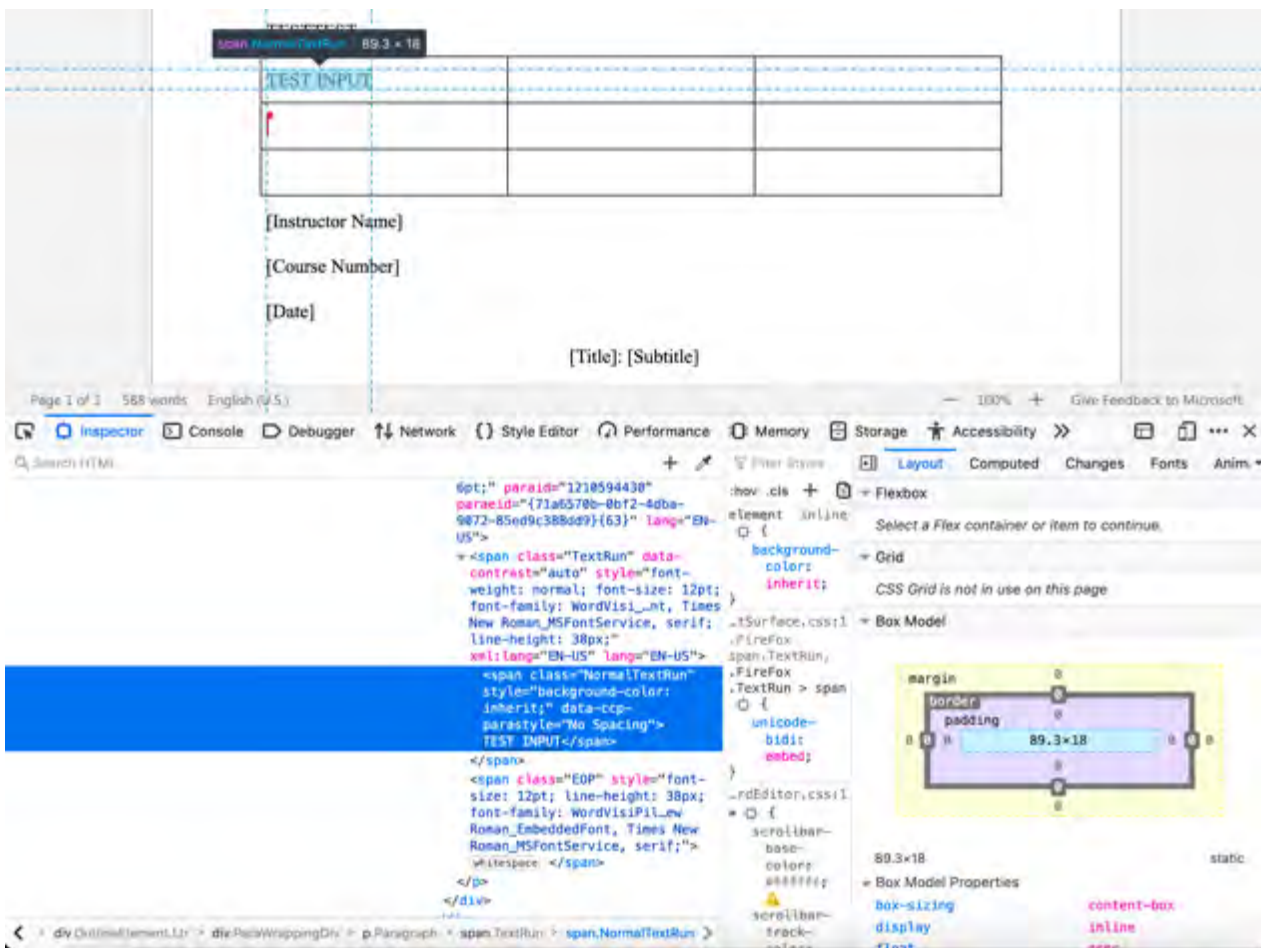


148. The authoring tool in the Accused Instrumentality is configured to access the computer memory to select the symbolic name corresponding to the web component of the defined UI object. For example, the Accused Instrumentality accesses page components such as Tables and their associated data from memory as shown below.



149. When the Accused Instrumentality creates a UI object, it is associated with a symbolic name unique to that type of UI object (such as a Table). The authoring tool associates this symbolic name with the defined UI object so that it can be referenced by the Accused

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Source: <https://support.microsoft.com/en-us/office/basic-tasks-in-word-87b3243c-b0bf-4a29-82aa-09a681999fdc#ID0EABAAA=Web>

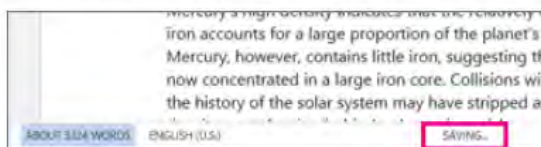
Basic tasks in Word

Word for Microsoft 365, Word for the web, Word 2019, Word 2016, Word 2013, Word 2010

Newer Versions Web Office 2013 Office 2010

With Word for the web, you use your web browser to create, view, and edit the personal documents that you store on OneDrive. If your organization or college has a Microsoft 365 plan or SharePoint site, start using Word for the web by creating or storing documents in libraries on your site. Save changes

Word saves your changes automatically. Look on the status bar at the bottom left corner of Word for the web. It will either show **Saved** or **Saving**.



Source: <https://support.microsoft.com/en-us/office/basic-tasks-in-word-87b3243c-b0bf-4a29-82aa-09a681999fdc#ID0EABAAA=Web>

151. All data from the Accused Instrumentality and data used by the individual Web App that is being viewed is stored in the Microsoft database. When a user chooses a UI component and edits it or otherwise makes changes, these components and associated data are retrieved from the Microsoft database where they are stored.

Basic tasks in Word

Word for Microsoft 365, Word for the web, Word 2019, Word 2016, Word 2013, Word 2010

Newer Versions

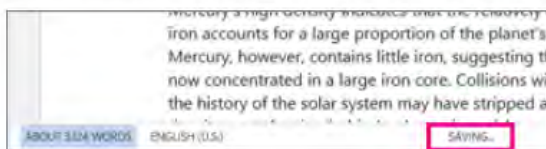
Web

Office 2013

Office 2010

With Word for the web, you use your web browser to create, view, and edit the personal documents that you [store on OneDrive](#). If your organization or college has a Microsoft 365 plan or SharePoint site, start using Word for the web by [creating](#) or [storing](#) documents in libraries on your site. Save changes

Word saves your changes automatically. Look on the status bar at the bottom left corner of Word for the web. It will either show **Saved** or **Saving**.



(<https://support.microsoft.com/en-us/office/basic-tasks-in-word-87b3243c-b0bf-4a29-82aa-09a681999fdc#ID0EABAAA=Web>)

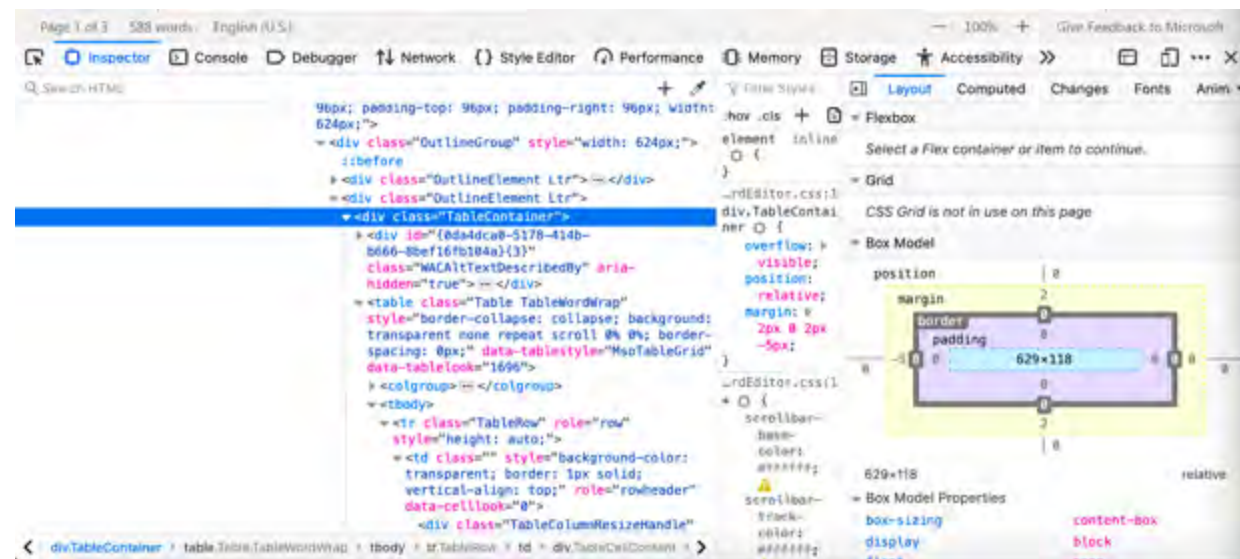
152. The authoring tool in the Accused Instrumentality is configured to build an application consisting of one or more web page views from the Microsoft database. That application is provided in the form of the JavaScript files and associated data for the web page views that are stored in the Microsoft database. When a browser is used to access the Accused Instrumentality, it uses a player which interacts with the application and data stored on the Microsoft server. That player accesses and renders the data to generate the web page viewed by the user. The player operates with the virtual machine (for example, Microsoft Internet Explorer uses the Trident or Blink virtual machine, depending on the software version) and the information stored in the database in order to generate and display at least a portion of one or more web pages. The player includes at least some code that is device-dependent in order to allow the environment to work across a variety of devices such as personal computers (including laptops and desktops), tablets, and phones.

153. As described and shown above, when a browser accesses Web Apps built by a Microsoft user, the application is provided to the device in the form of JavaScript files and other

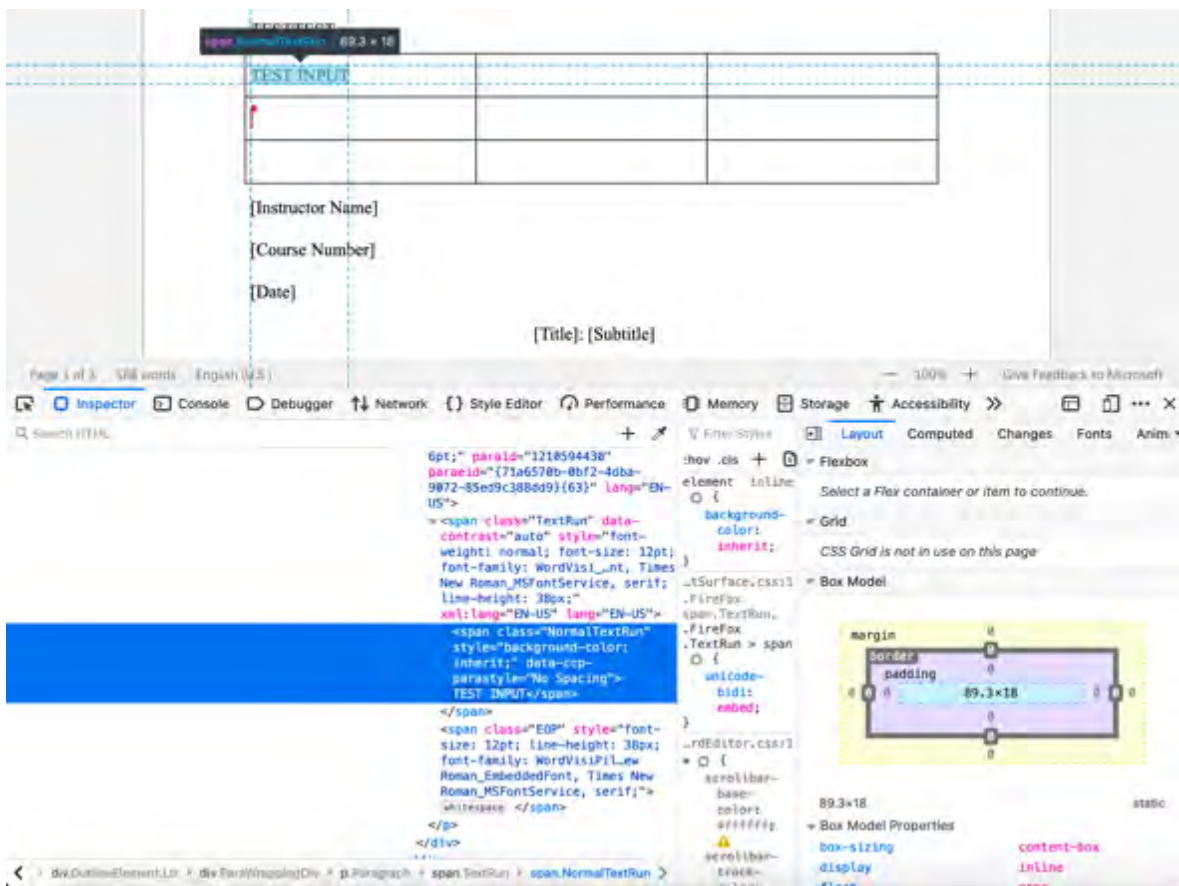
1 assets. The browser's player operates with the virtual machine to interpret this JavaScript and
 2 execute it locally.



10 154. The Accused Instrumentality includes UI objects (such as text fields and tables)
 11 that are configured to receive input and generate visual output. Interaction by the user with the
 12 Accused Instrumentality allows the App to store any input values in the Microsoft database. The
 13 web service also uses that same data to generate and display output values associated with these
 14 inputs when displaying data from the database to the user.



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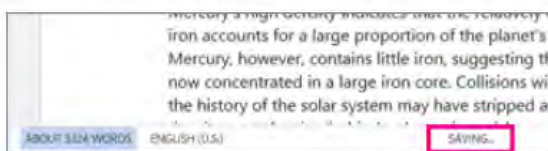
Basic tasks in Word

Word for Microsoft 365, Word for the web, Word 2019, Word 2016, Word 2013, Word 2010

Newer Versions Web Office 2013 Office 2010

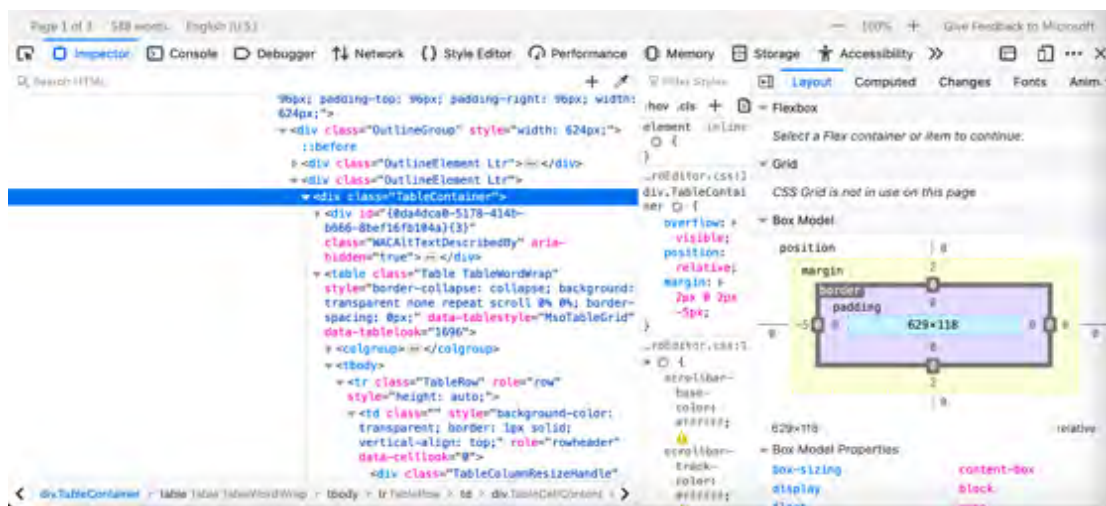
With Word for the web, you use your web browser to create, view, and edit the personal documents that you store on OneDrive. If your organization or college has a Microsoft 365 plan or SharePoint site, start using Word for the web by creating or storing documents in libraries on your site. Save changes

Word saves your changes automatically. Look on the status bar at the bottom left corner of Word for the web. It will either show **Saved** or **Saving**.

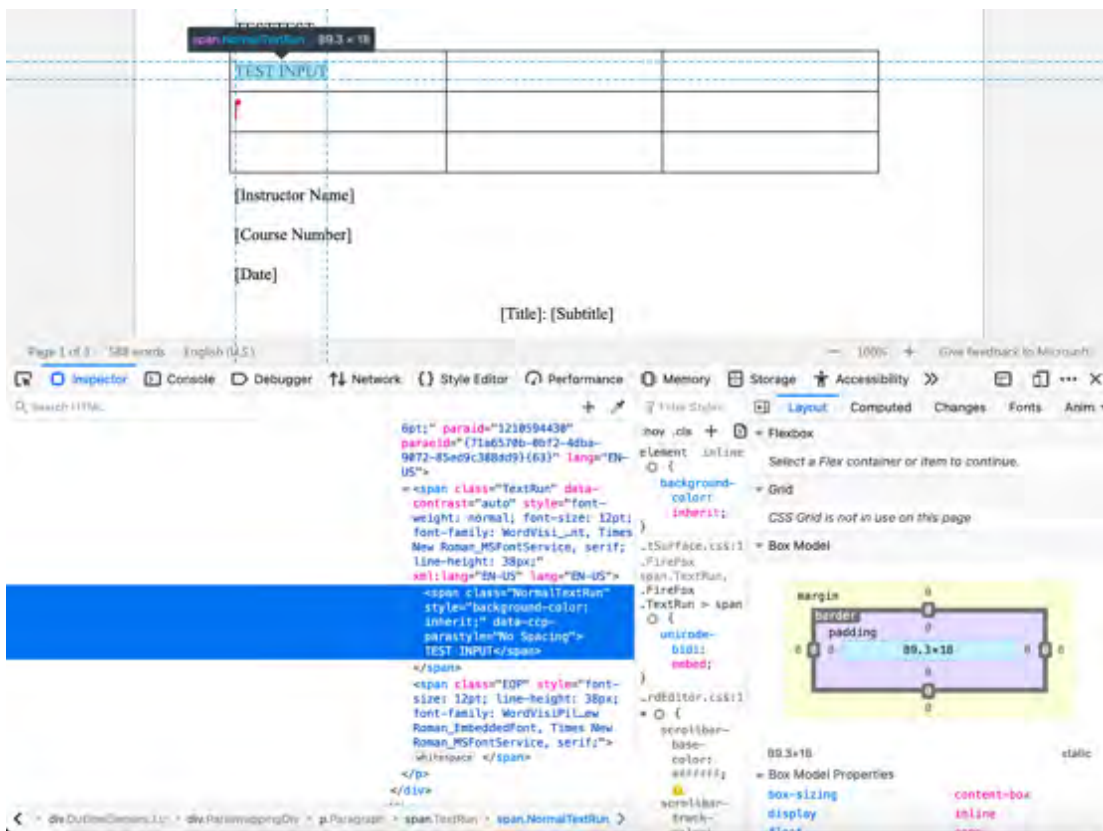


(<https://support.microsoft.com/en-us/office/basic-tasks-in-word-87b3243c-b0bf-4a29-82aa-09a681999fdc#ID0EABAAA=Web>)

155. The player on the device operates with the virtual machine to execute the JavaScript instructions provided with the Accused Instrumentality in order to query the database for the output symbolic names and output values. The instructions also provide for the display of these one or more output values in the UI object in order to display the appropriate data to the user.

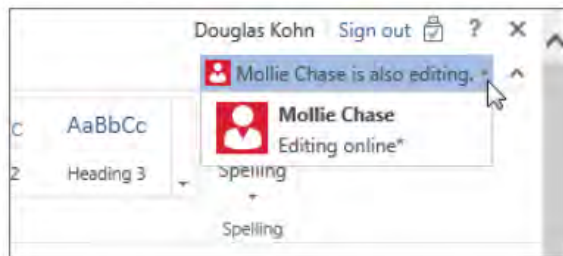


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Work together on the same doc

To work together in Word for the web, you edit a document as you normally would. If others are also editing it, Word for the web alerts you to their presence. You can see everyone who is currently working in the document by clicking in the ribbon.



Clicking on an author's name jumps you to where they're working in the doc. And you'll see the changes they make as they're happening. They can be working in Word for the web, Word 2010 or later, or Word for Mac 2011.

Source: <https://support.microsoft.com/en-us/office/basic-tasks-in-word-87b3243c-b0bf-4a29-82aa-09a681999fdc#ID0EABAAA=Web>

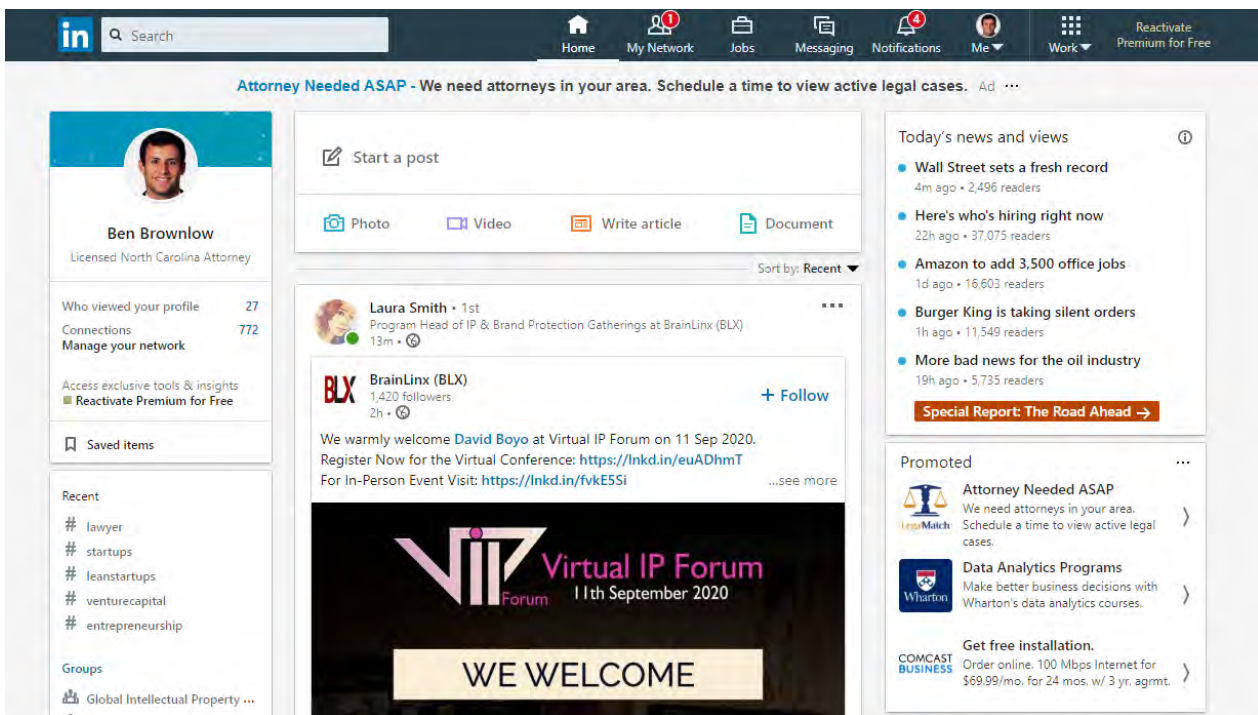
156. Microsoft was made aware of the '044 patent and its infringement thereof at least as early as July 27, 2019 when Express Mobile provided notice of Microsoft's infringement of the '044 patent to Dev Stahlkopf, General Counsel of Microsoft. Since at least the time Microsoft received notice, Microsoft has induced others to infringe at least one claim of the '044 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to Microsoft's clients, customers, and end users, whose use of the Accused Instrumentality constitutes direct infringement of at least one claim of the '044 patent. In particular, Microsoft's actions that aid and abet others such as customers and end users to infringe include advertising and distributing the Accused Instrumentality and providing instruction materials, training, and services regarding the Accused Instrumentality. *See e.g.*, microsoft.com, support.microsoft.com, <https://support.microsoft.com/en-us/office>, <https://support.microsoft.com/en-us/microsoft-365>. Microsoft has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Microsoft has had actual knowledge of the '044 patent and knowledge that its acts were inducing infringement of the '044 patent since at least the date Microsoft received notice that such activities infringed the '044 patent.

1 157. Microsoft is liable as a contributory infringer of the '044 patent under 35 U.S.C. §
2 271(c) by offering to sell, selling and importing into the United States website or web page
3 authoring tools to be especially made or adapted for use in an infringement of the '044 patent.
4 The Accused Instrumentality is a material component for use in practicing the '044 patent, is
5 specifically made and is not a staple article of commerce suitable for substantial non-infringing
6 use.

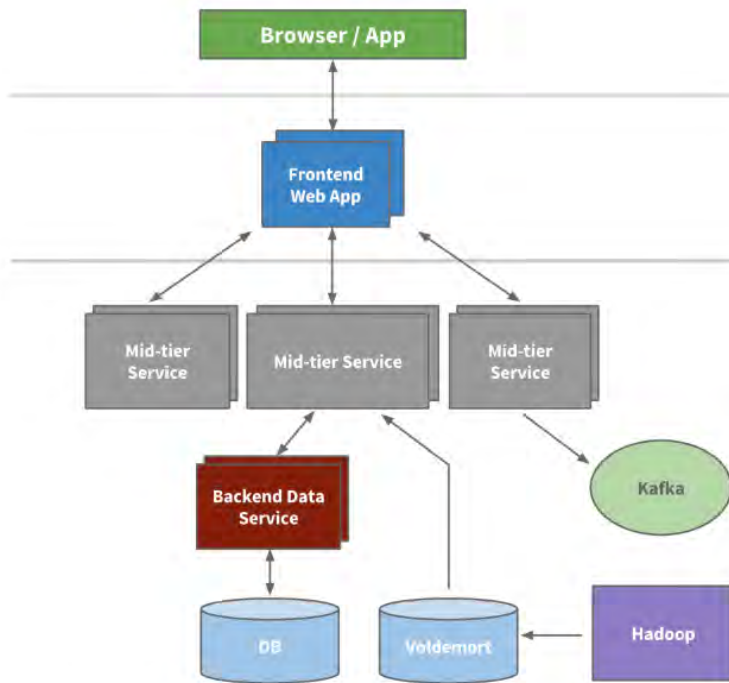
7 158. Upon information and belief, since the date of its receipt of notice, Microsoft's
8 infringement of the '044 patent has been willful and intentional under the standard announced in
9 *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least
10 July 27, 2019, Microsoft has willfully infringed the '044 patent by refusing to take a license and
11 continuing to make, use, test, sell, license, and/or offer for sale/license the Accused
12 Instrumentality. Microsoft has been aware that it infringes the '044 patent since at least July 27,
13 2019 and instead of taking a license, Microsoft has opted to make the business decision to
14 "efficiently infringe" the '044 patent. In doing so, Microsoft willfully infringed the '044 Patent.

15 159. Microsoft's infringement has damaged and injured and continues to damage and
16 injure Express Mobile.

17 160. LinkedIn generates code to provide content on the display of a device for each of its
18 users (the "Accused Instrumentality").
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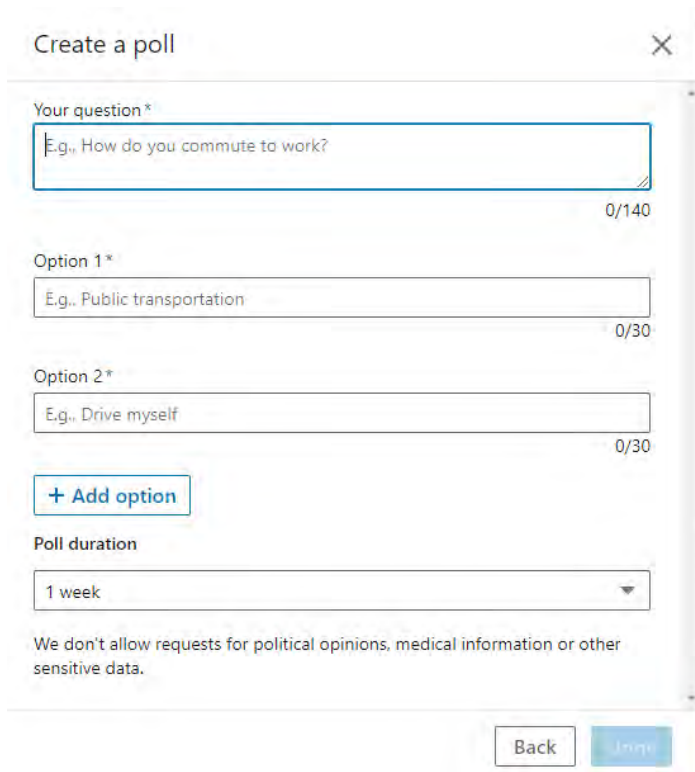
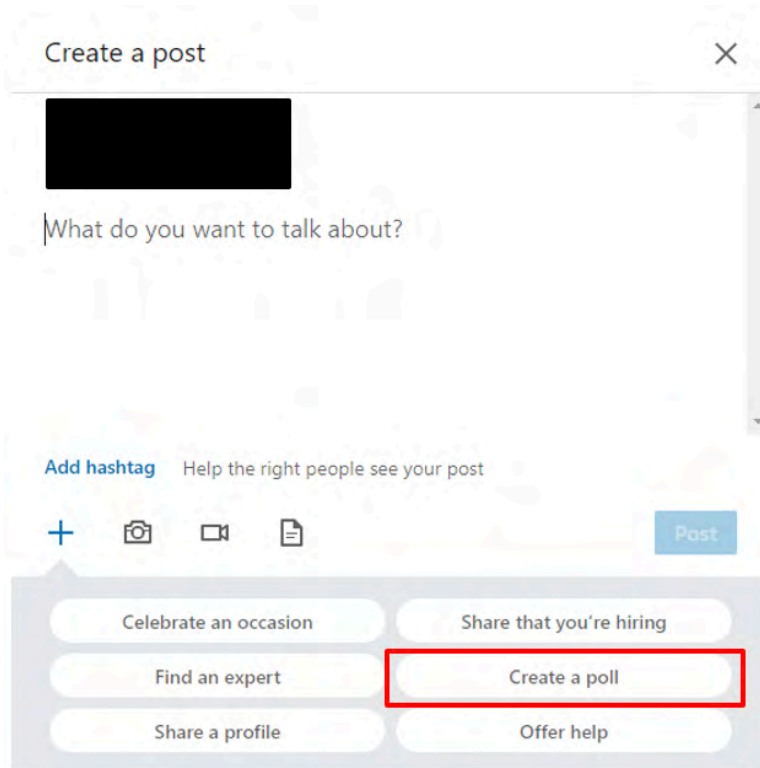
161. The Accused Instrumentality includes memory to store user selections and other information relating to a user's web site, web pages, and the web components or elements that are intended to be displayed.



An example multi-tier service oriented architecture within LinkedIn

Source: <https://engineering.linkedin.com/architecture/brief-history-scaling-linkedin>

1 panel is the “Create a Poll” which has its own UI objects that support the data format type of “Create
2 a Poll,” which takes the user inputs and generates new event outputs.



164. The Accused Instrumentality’s web components include an address of the web service.

The screenshot shows the KeyCDN IP Location Finder interface. At the top, there is a navigation bar with 'Features', 'Solutions', 'Network', 'Pricing', and a search icon. On the right, there are links for 'Support', 'Login', and a 'Sign Up' button. The main content area is titled 'IP Location Finder' and includes a search input field with the text 'LOOKUP IP ADDRESS OR HOSTNAME'. Below the search field, the input 'www.linkedin.com' is shown, followed by a blue 'Find' button. To the left of the search area is a sidebar with categories: 'Web', 'Network', 'Security', and 'Other'. Under 'Network', several tools are listed, including 'IP Location Finder', 'DNS Checker', 'Ping Test', 'Ping IPv6 Test', 'Traceroute Test', and 'BGP Looking Glass'. The search results are displayed in a table format, divided into 'LOCATION' and 'NETWORK' sections. The 'LOCATION' section lists: Country (United States (US)), Continent (North America (NA)), Coordinates (37.751 (lat) / -97.822 (long)), and Time (2020-08-19 09:26:08 (America/Chicago)). The 'NETWORK' section lists: IP address (13.107.42.14), Hostname (13.107.42.14), Provider (MICROSOFT-CORP-MSN-AS-BLOCK), and ASN (8068). On the right side of the page, there is a 'Rollout' advertisement with the text 'Manage, Deploy & Measure Features at Scale with Rollout. Free 14 Day Trial.' and a small image of a globe.

Source: <https://tools.keycdn.com/geo?host=www.linkedin.com>

If you are using IPv6 on a Chrome browser, you should see something like this. Note the number 6 on the right side of the URL -- this means you are visiting www.linkedin.com via IPv6.

```

Headers Preview Response Cookies Timing
Remote Address: 2626:189:c086:182::5:ca:201:443
Request URL: https://www.linkedin.com/home?trk=nav_responsive_tab_home
Request Method: GET
Status Code: 200 OK
Request Headers
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
Accept-Encoding: gzip, deflate, sdch
Accept-Language: en-US,en;q=0.8
Connection: keep-alive
    
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If you want to look under the hood in advanced mode, right click on a LinkedIn page and click on Inspect Element. This will expose the HTTP header where you can see that we are serving an IPv6 address to you. It should look something like this.



Source: <https://engineering.linkedin.com/ipv6/permanent-launch-ipv6>

165. The Accused Instrumentality includes an authoring tool that allows the user to define a UI object to be displayed. For example, one of the web components “Create a Poll” allows the user to create a post and add a poll, which consists of an input and an output of the LinkedIn Polls web service.

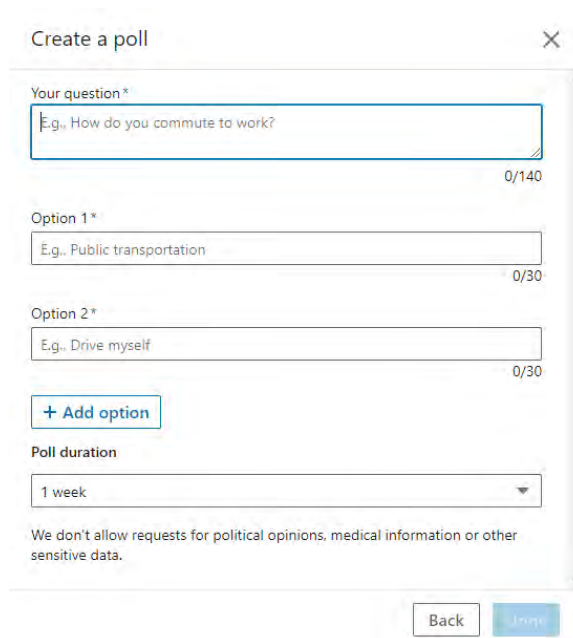
Create LinkedIn Polls

You can create a poll from [LinkedIn's homepage](#). If you're an admin of a [LinkedIn Page](#), or a [LinkedIn Group](#) you can create a poll directly from the page or group's homepage.

To create a poll from your homepage:

1. Click  **Start a post**.
2. Click **Create a poll**.
3. In the **Create a poll** window, type your question and fill in the options.
 - There is a minimum of two options and a maximum of four options on a poll.
 - Click **+Add option** to add another option.
4. Select the **Poll duration** from the dropdown.
 - The default duration is one week.
5. Click **Next**.
6. Click the  **Edit** icon to edit the post.
 - Select who you want to **share the poll with**.
7. You can add more to the post in the **What do you want to talk about?** field (optional).
8. Click **Post**.

Source: <https://www.linkedin.com/help/linkedin/answer/119595/create-linkedin-polls?lang=en>



Create a poll

Your question *

E.g., How do you commute to work?

0/140

Option 1 *

E.g., Public transportation

0/30

Option 2 *

E.g., Drive myself

0/30

+ Add option

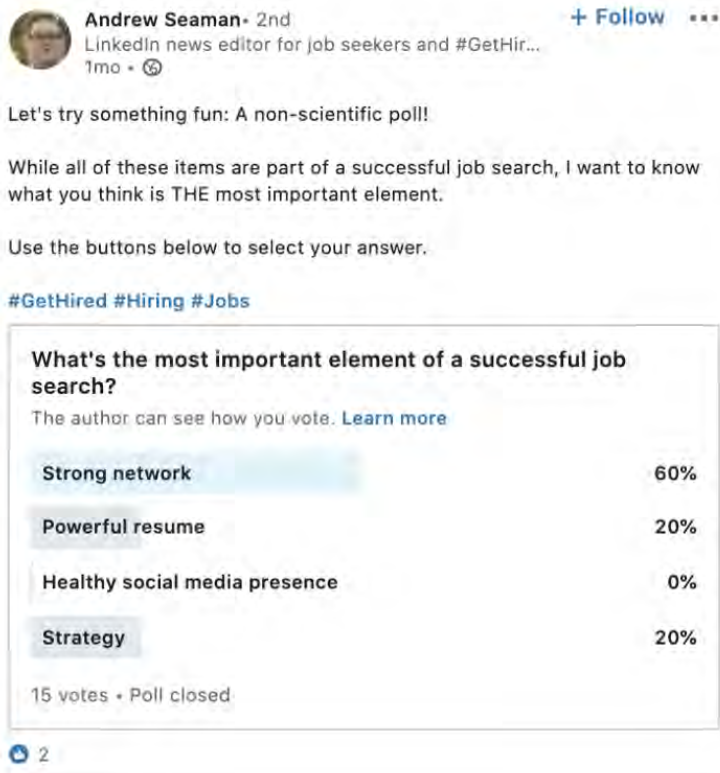
Poll duration

1 week

We don't allow requests for political opinions, medical information or other sensitive data.

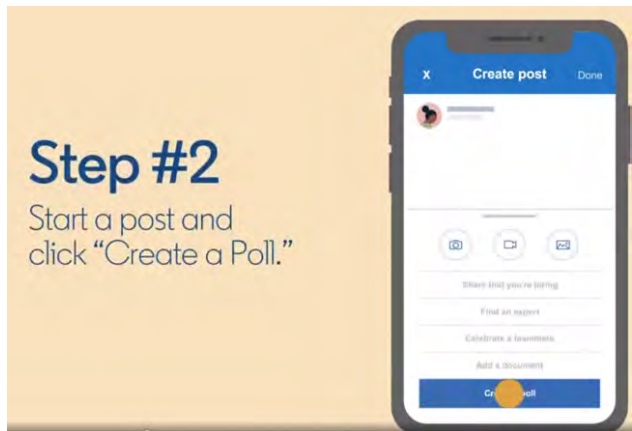
Back Next

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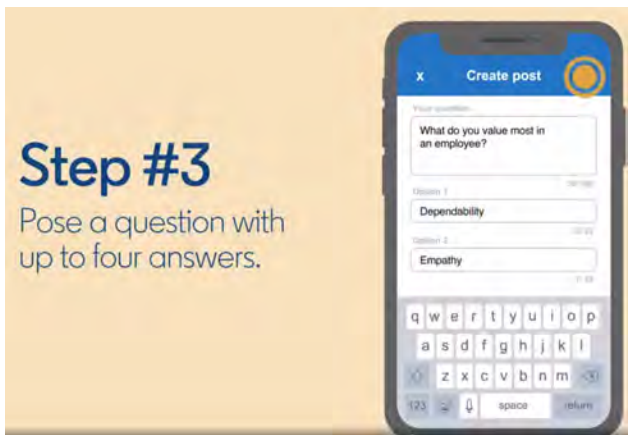


Source: <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>

166. When a user of the Accused Instrumentality uses the authoring tool to author a post including a poll, such as the following example where the user is polling her network to determine the most important element of a successful job search, the authoring tool accesses the computer memory to select the associated UI objects to allow the user to do so. Once selected, the Accused Instrumentality associates the symbolic name— “Create a Poll”—with the selected defined UI object. The “Create a Poll” symbolic name is only available to corresponding UI objects.



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Source: <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>

167. The Accused Instrumentality stores information representative of the defined UI object and related settings in a database and retrieves the information for purposes of displaying the UI object on the live web site. For example, settings related to the UI object would include the selected options for the poll as well as the duration selected for the poll.

Create LinkedIn Polls

You can create a poll from [LinkedIn's homepage](#). If you're an admin of a [LinkedIn Page](#), or a [LinkedIn Group](#) you can create a poll directly from the page or group's homepage.

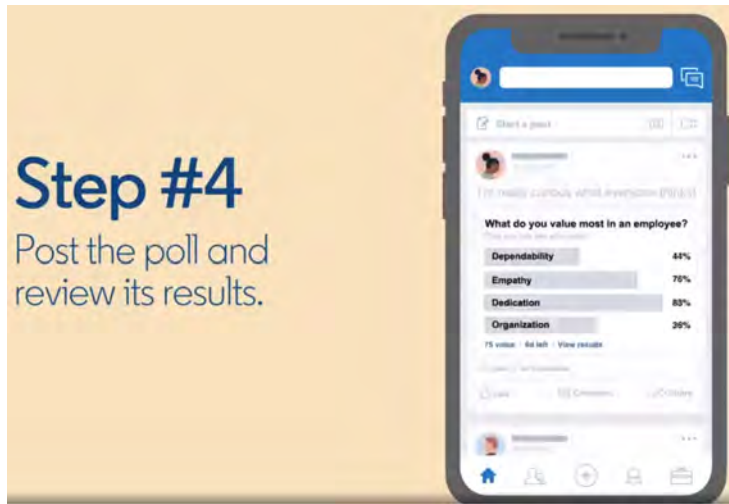
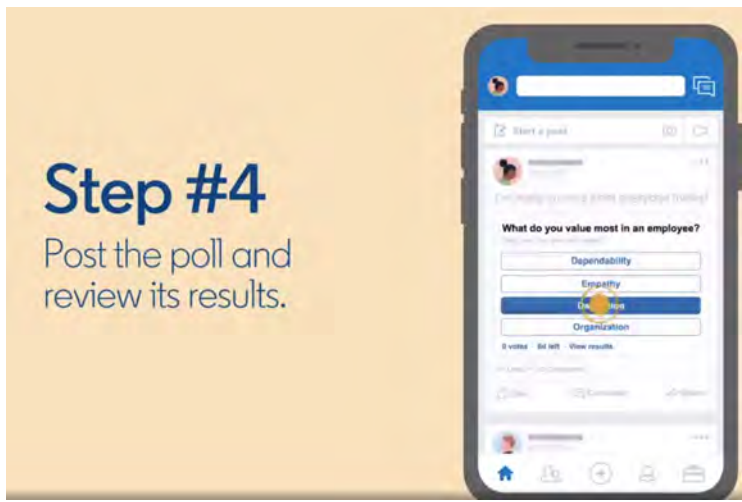
To create a poll from your homepage:

1. Click **Start a post**.
2. Click **Create a poll**.
3. In the **Create a poll** window, type your question and fill in the options.
 - There is a minimum of two options and a maximum of four options on a poll.
 - Click **+Add option** to add another option.
4. Select the **Poll duration** from the dropdown.
 - The default duration is one week.
5. Click **Next**.
6. Click the **Edit** icon to edit the post.
 - Select who you want to **share the poll with**.
7. You can add more to the post in the **What do you want to talk about?** field (optional).
8. Click **Post**.

Source: <https://www.linkedin.com/help/linkedin/answer/119595/create-linkedin-polls?lang=en>

168. In the example below, the Accused Instrumentality stores the “What do you value most in an employee?” selections made by the user and retrieves those selections for displaying to the user’s network.

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Source: <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>


169. The Accused Instrumentality includes an application that allows users to use LinkedIn on mobile devices.

Navigate the LinkedIn Mobile App

The **LinkedIn mobile app** is available from your phone's app store and allows you to access your LinkedIn account from your mobile device.

To access **your profile**, account settings, and information about **who's viewed your profile**, tap on your profile picture in the top left corner.

From the top of your homepage, you can also:

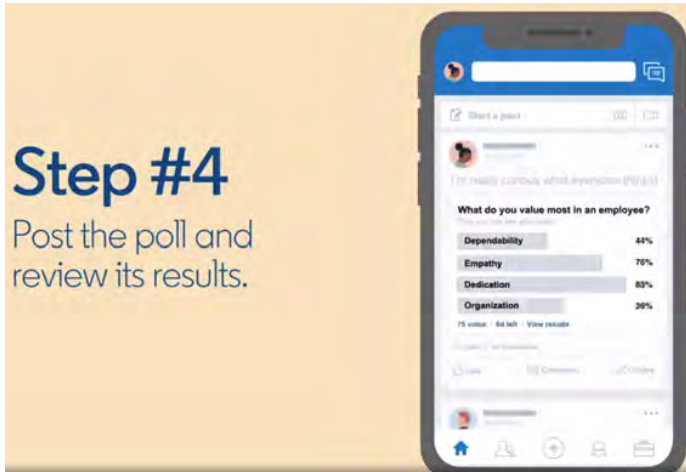
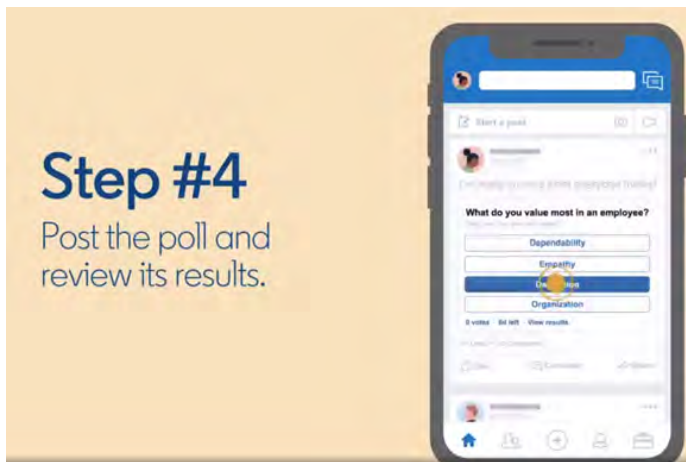
- Use the search bar to **search** LinkedIn for relevant people, companies, jobs, or hashtags.
- Use the  **Messaging** tab to have **professional conversations with your connections**.

Additional tabs can be found at the bottom of your homepage. You can navigate between tabs on the LinkedIn mobile app by tapping the icons in the navigation bar:

Source: <https://www.linkedin.cn/help/linkedin/mobile-apps/15001/15007/62636>

170. The application is provided, for example, in the form of JavaScript files and associated data for the web page view(s) that are stored in the LinkedIn database. When a browser is used to access LinkedIn, it uses a player which interacts with the application and data stored on the LinkedIn server. The player accesses and renders the data to generate the web page viewed by the user. The player operates with the virtual machine (for example, Microsoft Internet Explorer uses the Trident or Blink virtual machine, depending on the software version) and the information stored in the database in order to generate and display at least a portion of one or more web pages. The player includes code that is device-dependent in order to allow the environment to work across a variety of devices such as personal computers (including laptops and desktops), tablets, and mobile phones. LinkedIn also includes a player or code that utilizes information stored in its database to generate for display one or more web pages as shown below.

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Source: <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>

171. The Accused Instrumentality sends the application and player code to the client devices to be executed on client devices. As described above and shown below, when a browser accesses LinkedIn or views a post on LinkedIn, the application is provided to the device, for example, in the form of JavaScript files and other assets. The browser's player code operates with the virtual machine to interpret this JavaScript and execute it locally.

Navigate the LinkedIn Mobile App

The **LinkedIn mobile app** is available from your phone's app store and allows you to access your LinkedIn account from your mobile device.

To access **your profile**, account settings, and information about **who's viewed your profile**, tap on your profile picture in the top left corner.

From the top of your homepage, you can also:

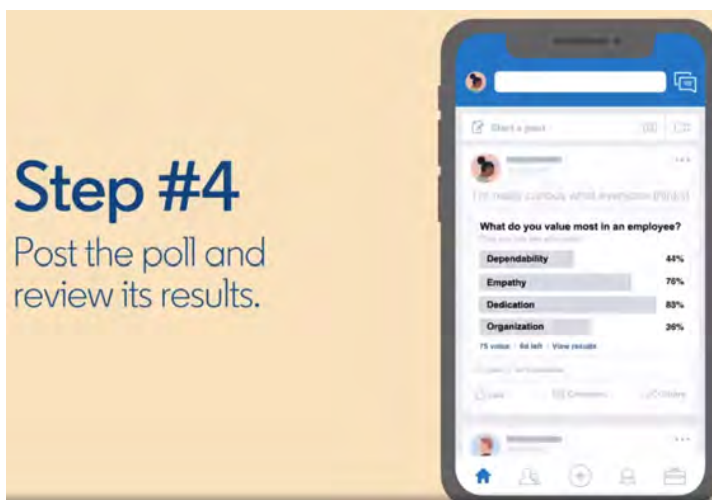
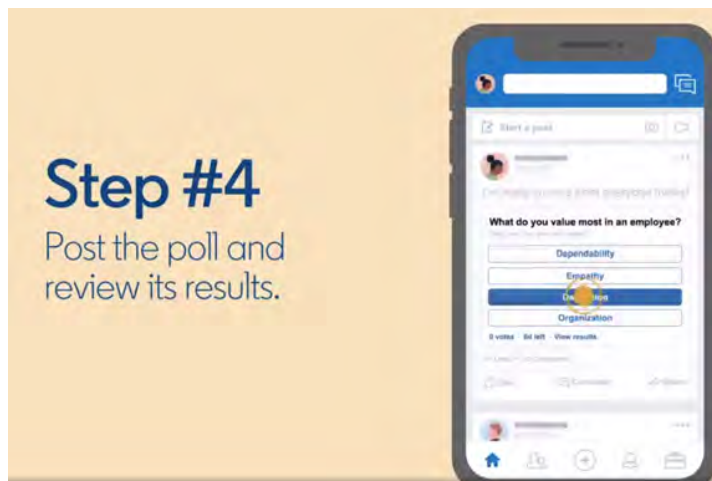
- Use the search bar to **search** LinkedIn for relevant people, companies, jobs, or hashtags.
- Use the **Messaging** tab to have **professional conversations with your connections**.

Additional tabs can be found at the bottom of your homepage. You can navigate between tabs on the LinkedIn mobile app by tapping the icons in the navigation bar:

Source: <https://www.linkedin.cn/help/linkedin/mobile-apps/15001/15007/62636>

172. The Accused Instrumentality accepts input from the user of a device related to the defined UI object, input which is then provided to a webservice. The webpages receive the output from the webservice and provide instructions for the display of the device to present the output value in the defined UI object. The player code on the device operates with the virtual machine to execute the JavaScript instructions provided with LinkedIn in order to receive the output symbolic name and output value. The instructions also provide for the display of this output value in the UI object in order

1 to display the appropriate data to the user. This output value is presented in the UI object for display on
 2 the device to the user.



19 **Source:** <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>

21 173. LinkedIn was made aware of the '044 patent and its infringement thereof at least
 22 as early as October 26, 2020 when Express Mobile provided notice of LinkedIn's infringement
 23 of the '044 patent to Blake Lawit, SVP and General Counsel of LinkedIn Corporation. Since at
 24 least the time LinkedIn received notice, LinkedIn has induced others to infringe at least one
 25 claim of the '044 patent under 35 U.S.C. § 271(b) by, among other things, and with specific
 26 intent or willful blindness, actively aiding and abetting others to infringe, including but not
 27 limited to LinkedIn's clients, customers, and end users, whose use of the Accused
 28

1 Instrumentality constitutes direct infringement of at least one claim of the '044 patent. In
2 particular, LinkedIn's actions that aid and abet others such as customers and end users to infringe
3 include advertising and distributing the Accused Instrumentality and providing instruction
4 materials, training, and services regarding the Accused Instrumentality. *See e.g.*,
5 www.linkedin.com; <https://www.linkedin.com/help/linkedin?lang=en>;
6 [https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-](https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls)
7 [with-polls](https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls); <https://engineering.linkedin.com/ipv6/permanent-launch-ipv6>;
8 <https://www.linkedin.com/help/linkedin/answer/119595/create-linkedin-polls?lang=en>;
9 <https://www.linkedin.cn/help/linkedin/mobile-apps/15001/15007/62636>; and related domains
10 and subdomains. LinkedIn has engaged in such actions with specific intent to cause
11 infringement or with willful blindness to the resulting infringement because LinkedIn has had
12 actual knowledge of the '044 patent and knowledge that its acts were inducing infringement of
13 the '044 patent since at least the date LinkedIn received notice that such activities infringed
14 the '044 patent.

15 174. LinkedIn is liable as a contributory infringer of the '044 patent under 35 U.S.C. §
16 271(c) by offering to sell, selling and importing into the United States website or web page
17 authoring tools to be especially made or adapted for use in an infringement of the '044 patent.
18 The Accused Instrumentality is a material component for use in practicing the '044 patent, is
19 specifically made and is not a staple article of commerce suitable for substantial non-infringing
20 use.

21 175. LinkedIn's infringement has damaged and injured and continues to damage and
22 injure Express Mobile.

23 **COUNT IV - INFRINGEMENT OF U.S. PATENT NO. 9,471,287**

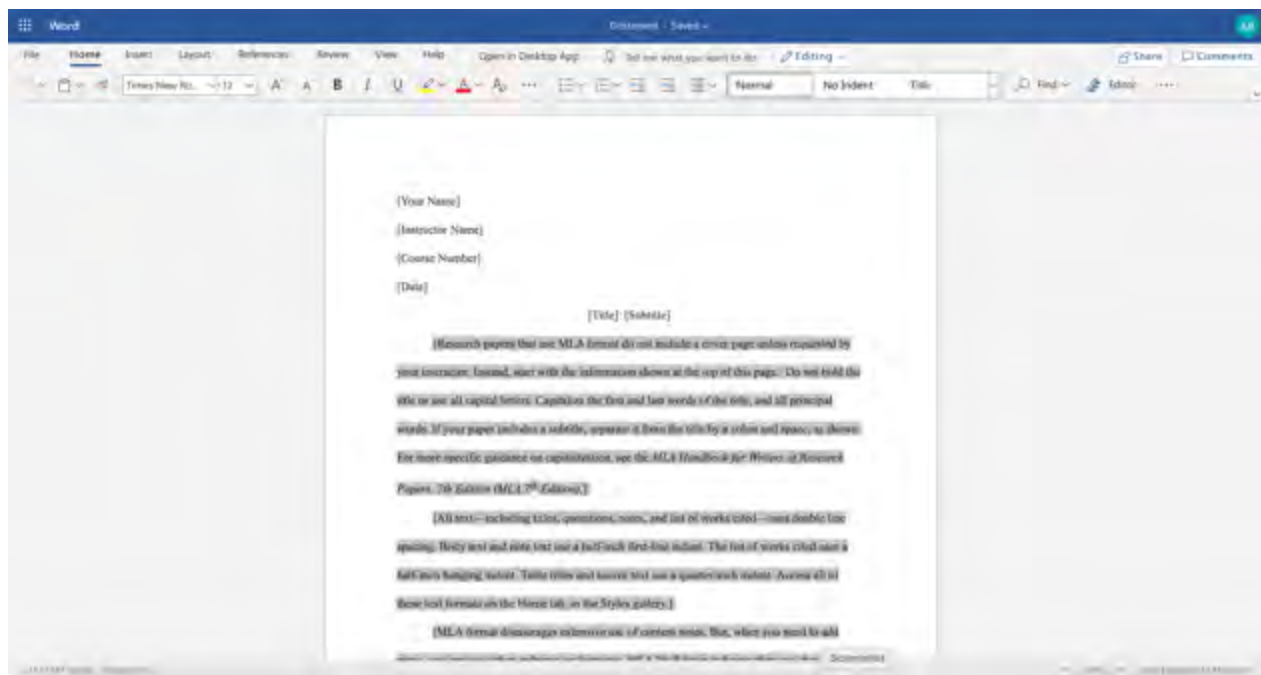
24 176. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 175
25 above.

26 177. Microsoft has manufactured, used, sold, offered to sell and/or provided and
27 continues to manufacture, use, sell, offer for sale and/or provide its browser-based version of
28

1 Office Web App (the “Accused Instrumentality”) that infringes, either literally or under the
 2 doctrine of equivalents, one or more claims of the ’287 patent in violation of 35 U.S.C. § 271(a).

3 178. Upon information and belief, Microsoft has directly infringed at least claim 1 of
 4 the ’287 patent through its Accused Instrumentality that generates code to provide content on a
 5 display of a device.

6 179. The Accused Instrumentality is a system for generating code to provide content
 7 on the display of a device for each of its users. The Accused Instrumentality server delivers
 8 browser-based versions of Word, PowerPoint, Excel, and OneNote. For example, the Microsoft
 9 Word Web App (shown below) generates code to provide content on the display of a user device,
 10 such as a desktop computer, laptop, tablet, and/or mobile phones.



How SharePoint 2013 uses Office Web Apps Server for viewing and editing Office documents

When used with SharePoint Server 2013, Office Web Apps Server provides updated versions of Word Web App, Excel Web App, PowerPoint Web App, and OneNote Web App. Users can view and, in some cases, edit Office documents in SharePoint libraries by using a supported web browser on computers and on many mobile devices, such as Windows Phones, iPhones, iPads, and Windows 8 tablets. Among the many new features in Office Web Apps, improved touch support and editing capabilities enable users of iPads and Windows 8 tablets to enjoy editing and viewing Office documents directly from their devices.

The following illustration summarizes the viewing and editing capabilities of Office Web Apps on different kinds of devices.

Viewing and editing capabilities of Office Web Apps

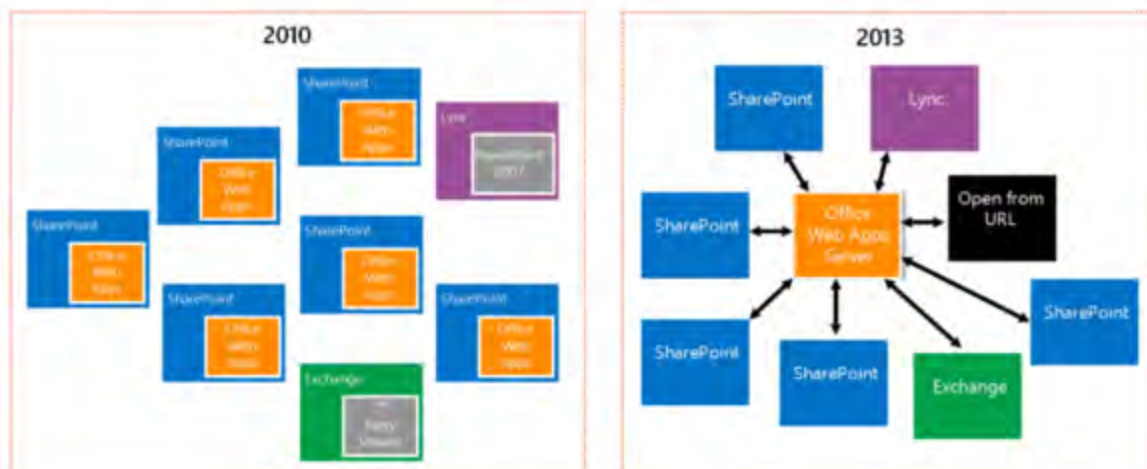


Source: <https://docs.microsoft.com/en-us/webappsserver/office-web-apps-server-overview>

180. The Accused Instrumentality stores the content and settings adjustments in a database, both locally and on Microsoft’s external database servers. The system includes memory to store user selections and other information relating to the web components or elements that are to be displayed.

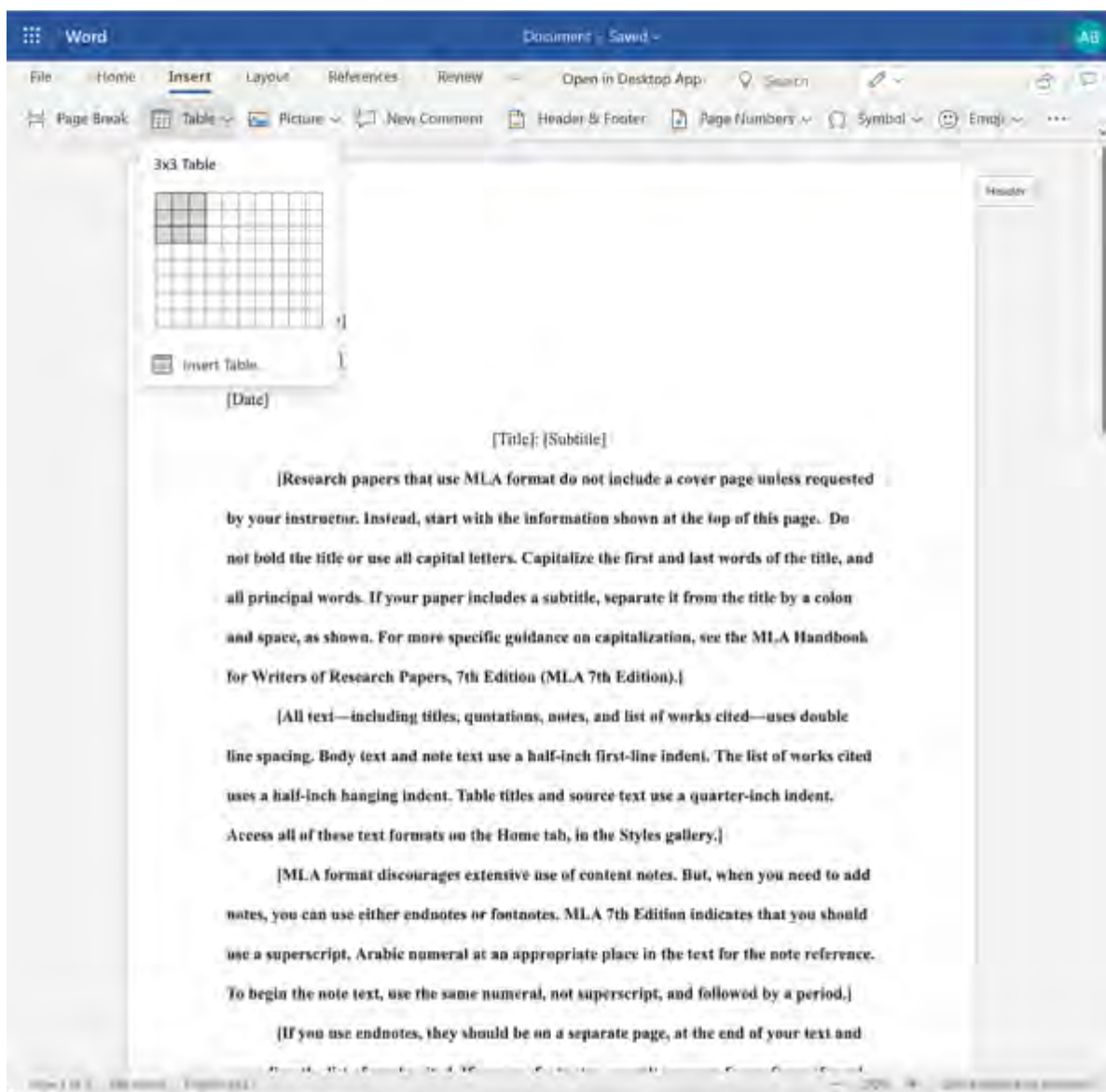
Differences between the Office Web Apps deployment models

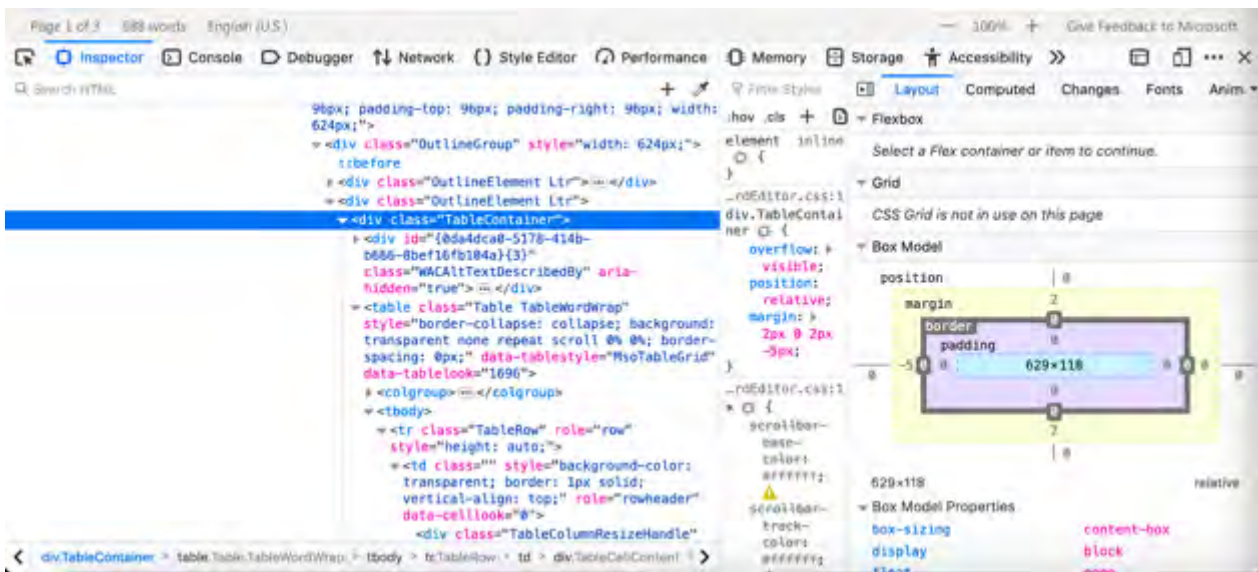
Office Web Apps then and now



Source: <https://docs.microsoft.com/en-us/webappsserver/office-web-apps-server-overview>

181. The various menus in the Accused Instrumentality include symbolic names for web components such as “Table” and “TableContainer,” a component that can be evoked by the corresponding symbolic name. The Table component is related to table inputs and display outputs of the Accused Instrumentality web service, obtained over a network by the user. The component’s name is a character string that is not a persistent address or pointer to an output value. The Table component is associated with a data format class type corresponding to a subclass of UI objects (in this case, Tables in a Word document), and where this symbolic name has a preferred UI object (the Table).

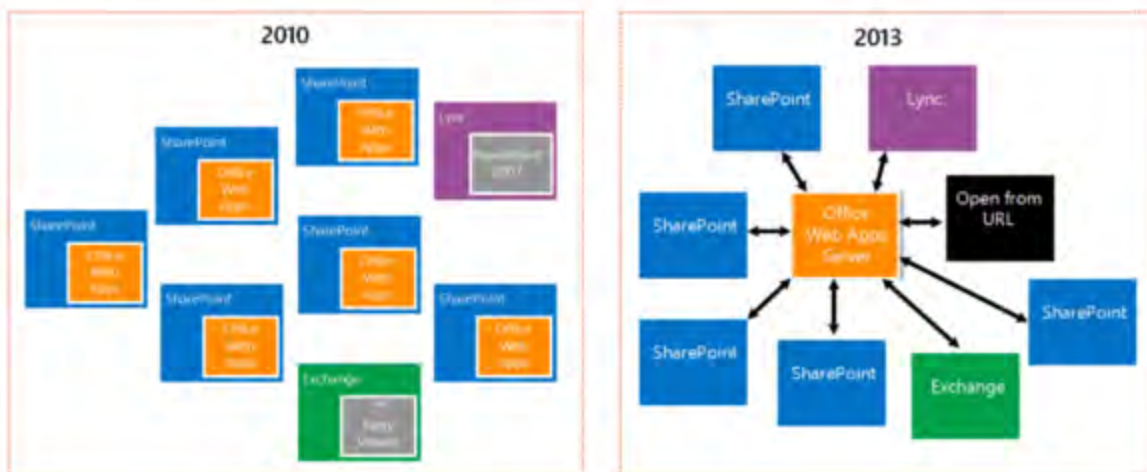




182. When a user accesses a document via the Accused Instrumentality, that document has a persistent address that is stored in the database to allow users to return to and consistently access or share a specific document.

Differences between the Office Web Apps deployment models

Office Web Apps then and now

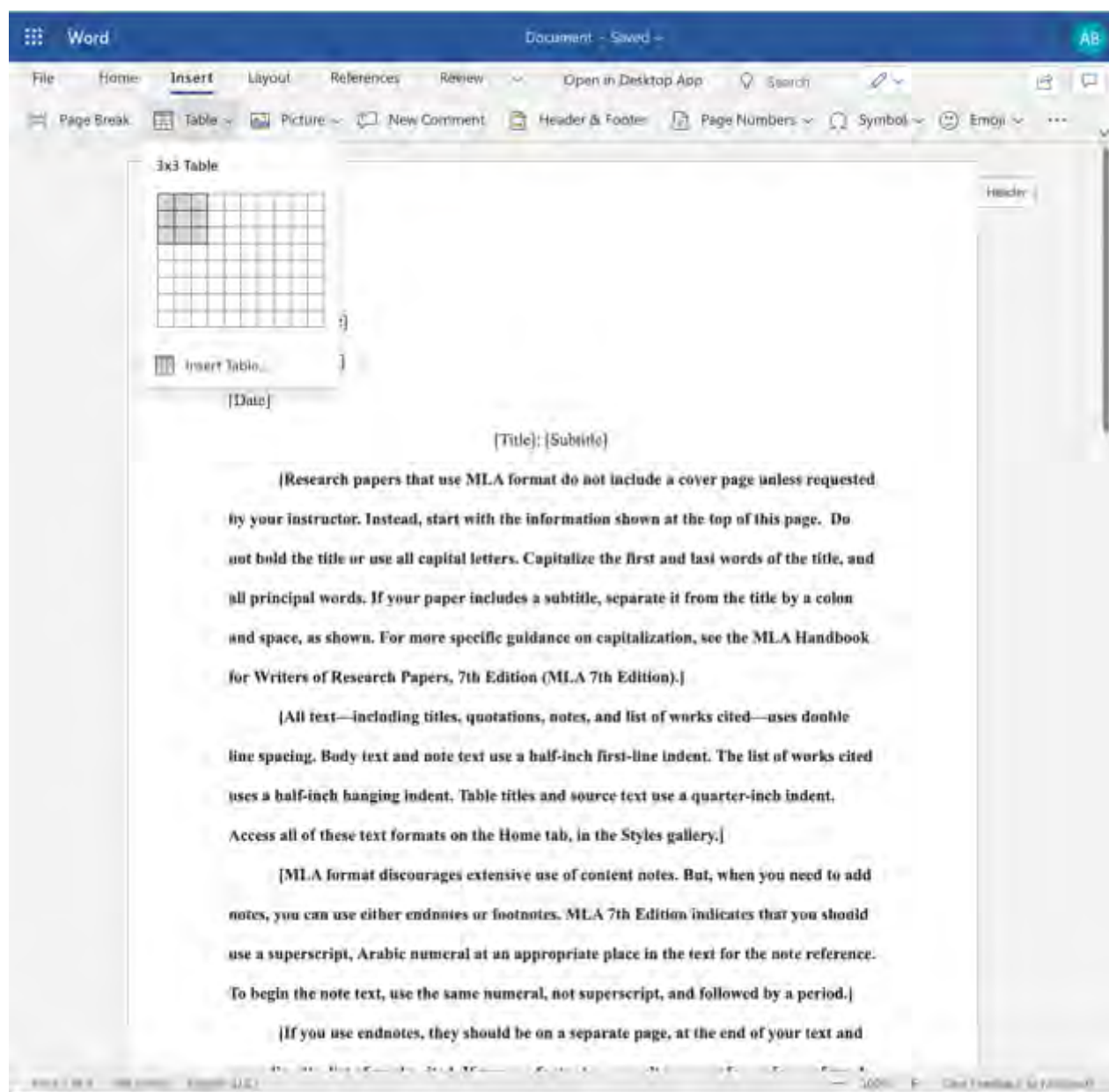


How Office Web Apps Server enables users to view Office files in shared folders and websites by using Online Viewers

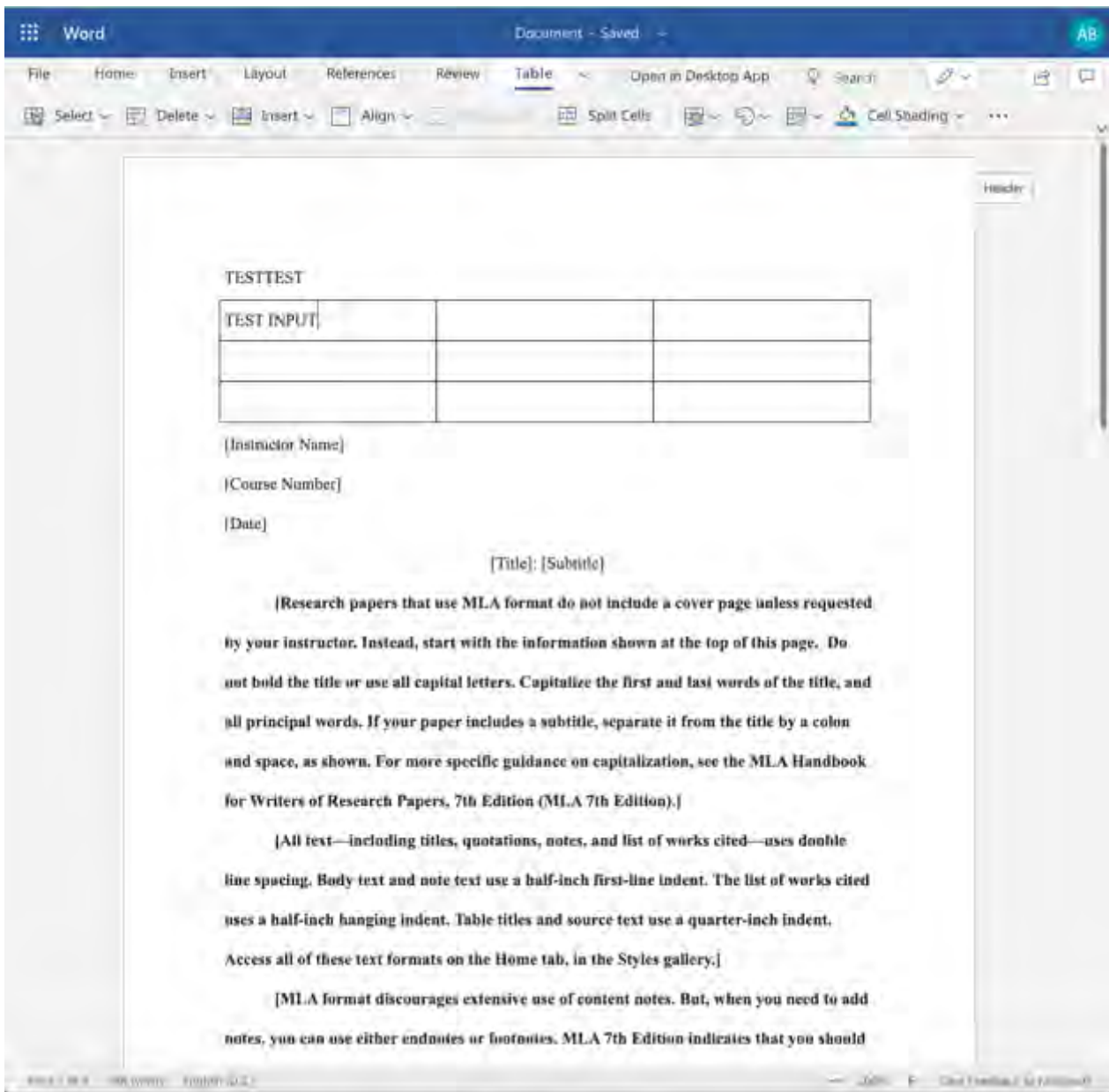
Online Viewers enable users to use a web browser to view Excel, PowerPoint and Word files that are stored on web servers or shared folders in an organization. Users can conveniently view Office files in a web browser without having to open a separate application. In addition, Online Viewers do not require Office 2013 to be installed on users' computers. Online Viewers also generate the code that is required to link or embed the URL inside a webpage. You can use Online Viewers within your Intranet, or on the Internet.

Source: <https://docs.microsoft.com/en-us/webappsserver/office-web-apps-server-overview>

183. The Accused Instrumentality has an authoring tool configured to define a UI object for presentation on the display.

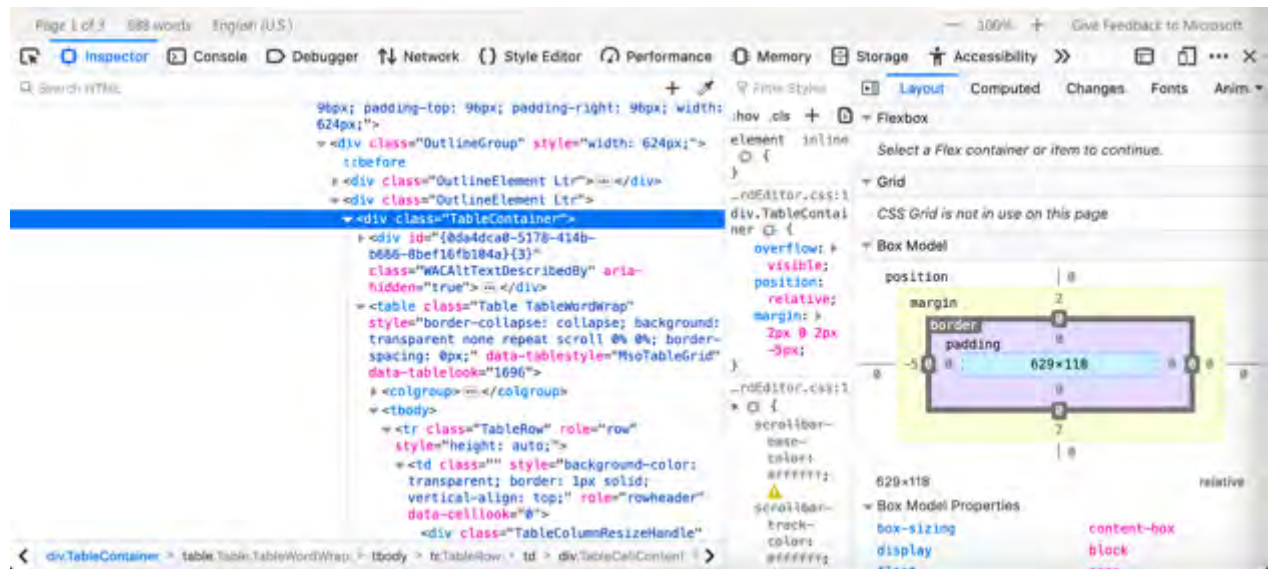


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184. The defined UI object that is selected is a Table, which is a web component of the Accused Instrumentality. The Table’s contents and settings comprise an input of the web service, and the resulting output to the user and associated parameters are an output of the web service. In this case, the defined UI object was selected by a user of the authoring tool. The authoring tool in the Accused Instrumentality is configured to access said computer memory to select the symbolic name corresponding to the web component of the defined UI object. For example, the Accused Instrumentality accesses page components such as Tables and their associated data from memory as shown below.

1 Instrumentality at a later time. This data will be committed to the database by the authoring tool
 2 as demonstrated below.



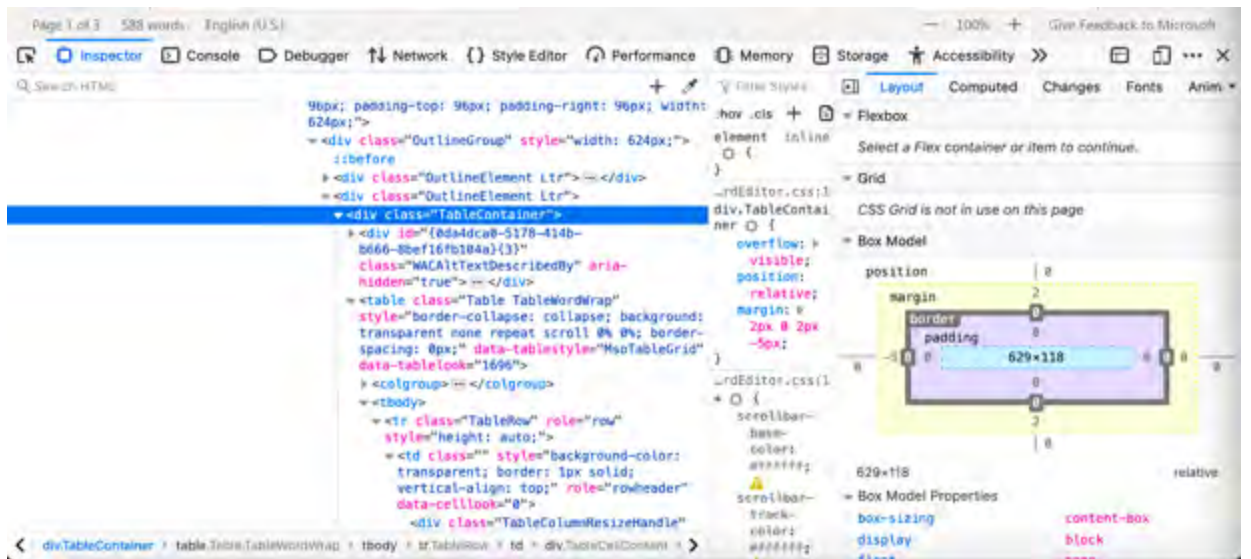
13 186. The authoring tool in the Accused Instrumentality is configured to build an
 14 application consisting of one or more web page views from the Microsoft database. The
 15 application is provided, for example, in the form of JavaScript files and associated data for the
 16 web page views that are stored in the Microsoft database. When a browser is used to access the
 17 Accused Instrumentality it uses a player which interacts with the application and data stored on
 18 the Microsoft server. The player accesses and renders the data to generate the web page viewed
 19 by the user. The player operates with the virtual machine (for example, Microsoft Internet
 20 Explorer uses the Trident or Blink virtual machine, depending on the software version) and the
 21 information stored in the database in order to generate and display at least a portion of one or
 22 more web pages. The player includes code that is device-platform-dependent in order to allow
 23 the environment to work across a variety of devices such as personal computers (including
 24 laptops and desktops), tablets, browsers, and mobile phones.

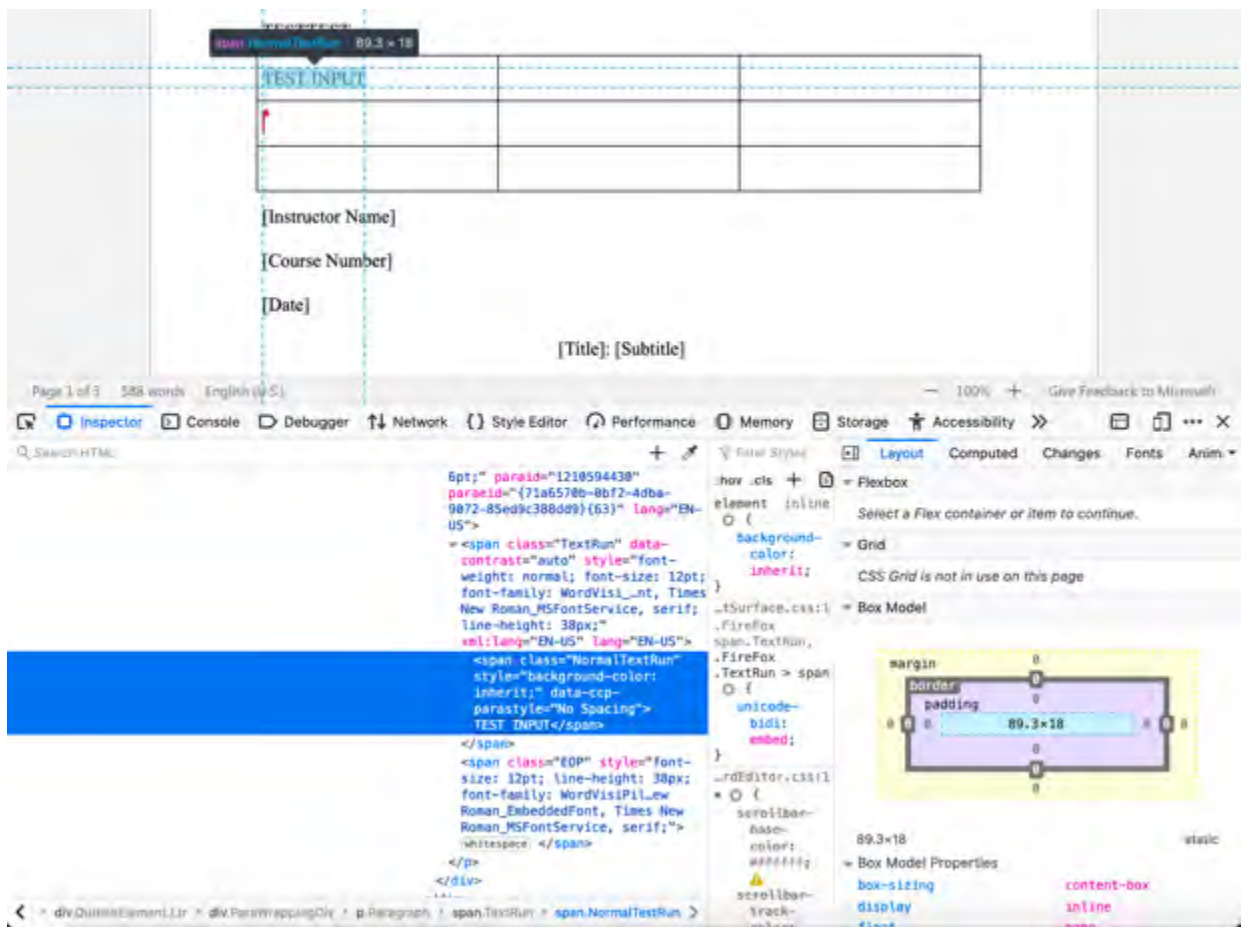
25 187. As described and shown above, when a browser accesses Web Apps built by a
 26 Microsoft user, the application is provided to the device, for example, in the form of JavaScript
 27

1 files and other assets. The player code operates with the virtual machine to interpret this
 2 JavaScript and execute it locally.



9 188. The Accused Instrumentality includes UI objects (such as text fields and tables)
 10 that are configured to receive input and generate visual output. Interaction by the user with the
 11 Accused Instrumentality allows the App to store any input values with the Microsoft database.
 12 The web service also uses that same data to generate and display output values associated with
 13 these inputs when displaying data from the database to the user.





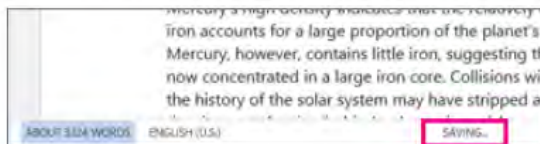
Basic tasks in Word

Word for Microsoft 365, Word for the web, Word 2019, Word 2016, Word 2013, Word 2010

Newer Versions Web Office 2013 Office 2010

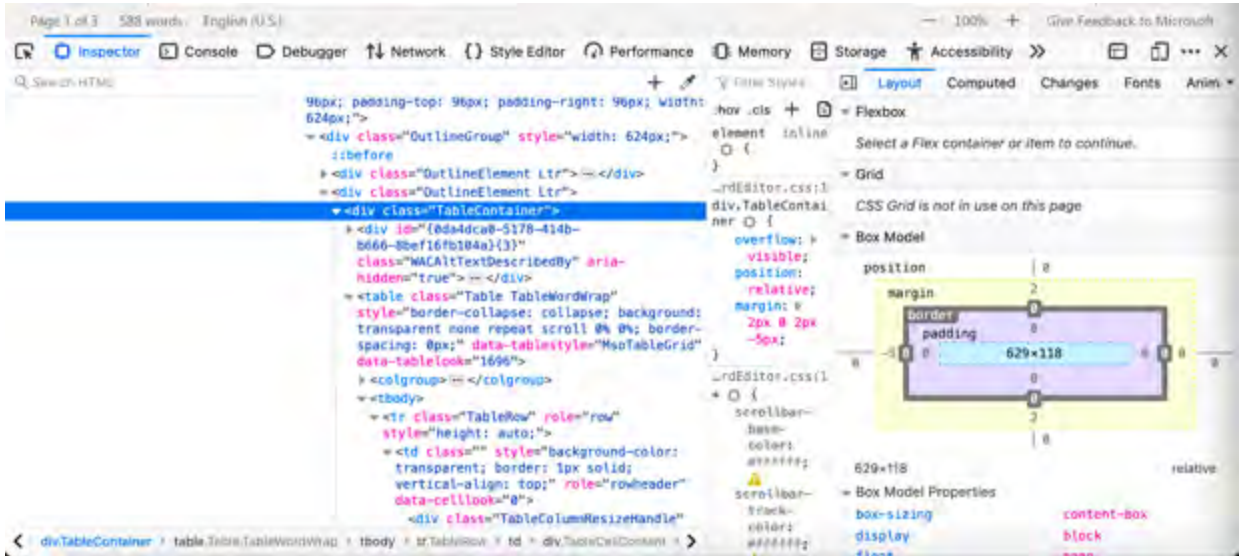
With Word for the web, you use your web browser to create, view, and edit the personal documents that you store on OneDrive. If your organization or college has a Microsoft 365 plan or SharePoint site, start using Word for the web by creating or storing documents in libraries on your site. Save changes

Word saves your changes automatically. Look on the status bar at the bottom left corner of Word for the web. It will either show **Saved** or **Saving**.

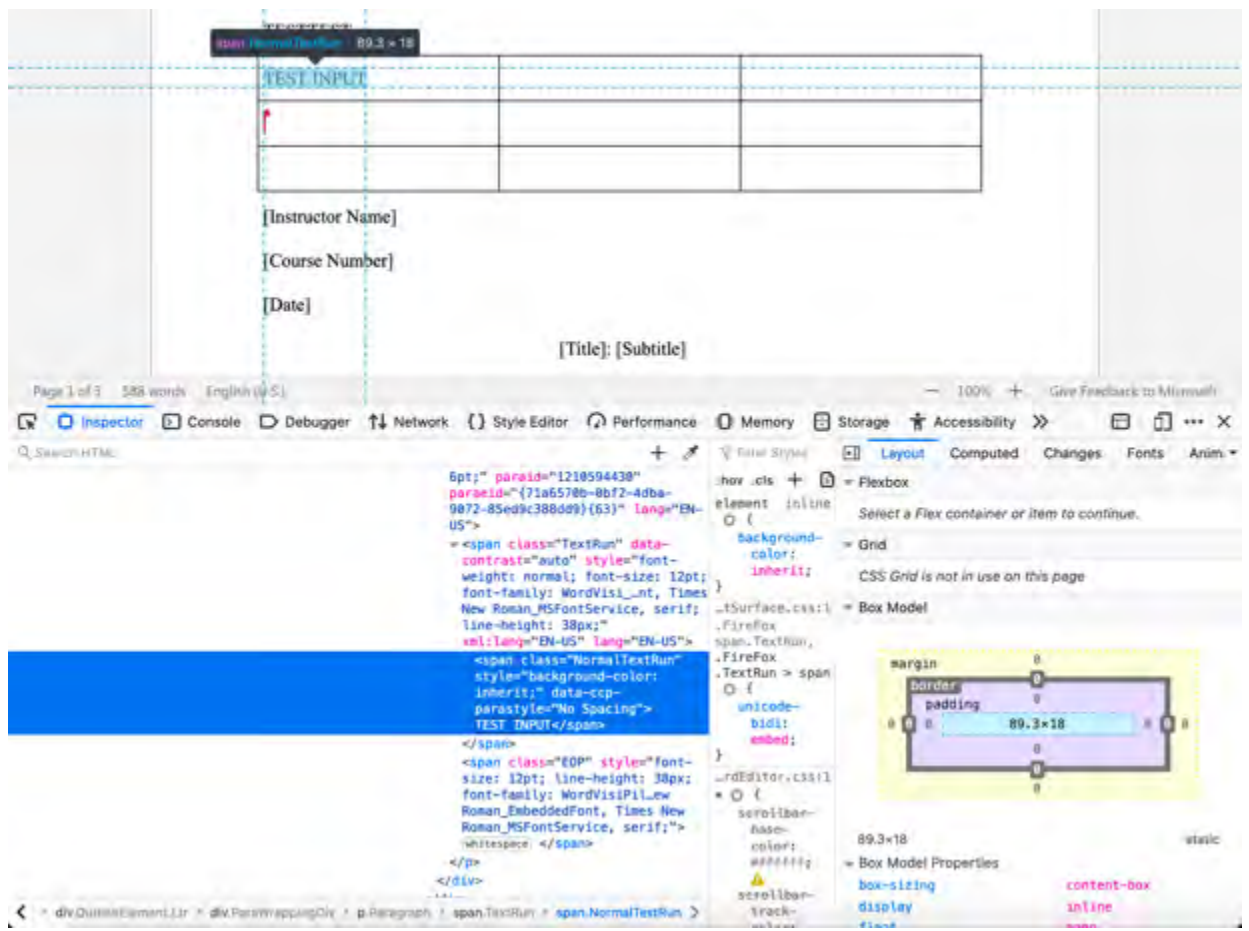


Source: <https://support.microsoft.com/en-us/office/basic-tasks-in-word-87b3243c-b0bf-4a29-82aa-09a681999fdc#ID0EABAAA=Web>

189. The player code on the device operates with the virtual machine to execute the JavaScript instructions provided with the Accused Instrumentality in order to query the database for the output symbolic names and output values. The instructions also provide for the display of these one or more output values in the UI object in order to display the appropriate data to the user.

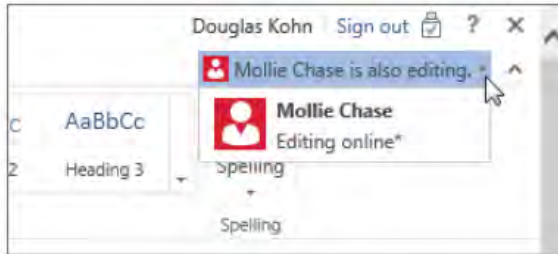


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1 Work together on the same doc

2 To work together in Word for the web, you edit a document as you normally would. If others are also editing
3 it, Word for the web alerts you to their presence. You can see everyone who is currently working in the
4 document by clicking in the ribbon.



9 Clicking on an author's name jumps you to where they're working in the doc. And you'll see the changes
10 they make as they're happening. They can be working in Word for the web, Word 2010 or later, or Word for
11 Mac 2011.

12 **Source:** <https://support.microsoft.com/en-us/office/basic-tasks-in-word-87b3243c-b0bf-4a29-82aa-09a681999fdc#ID0EABAAA=Web>

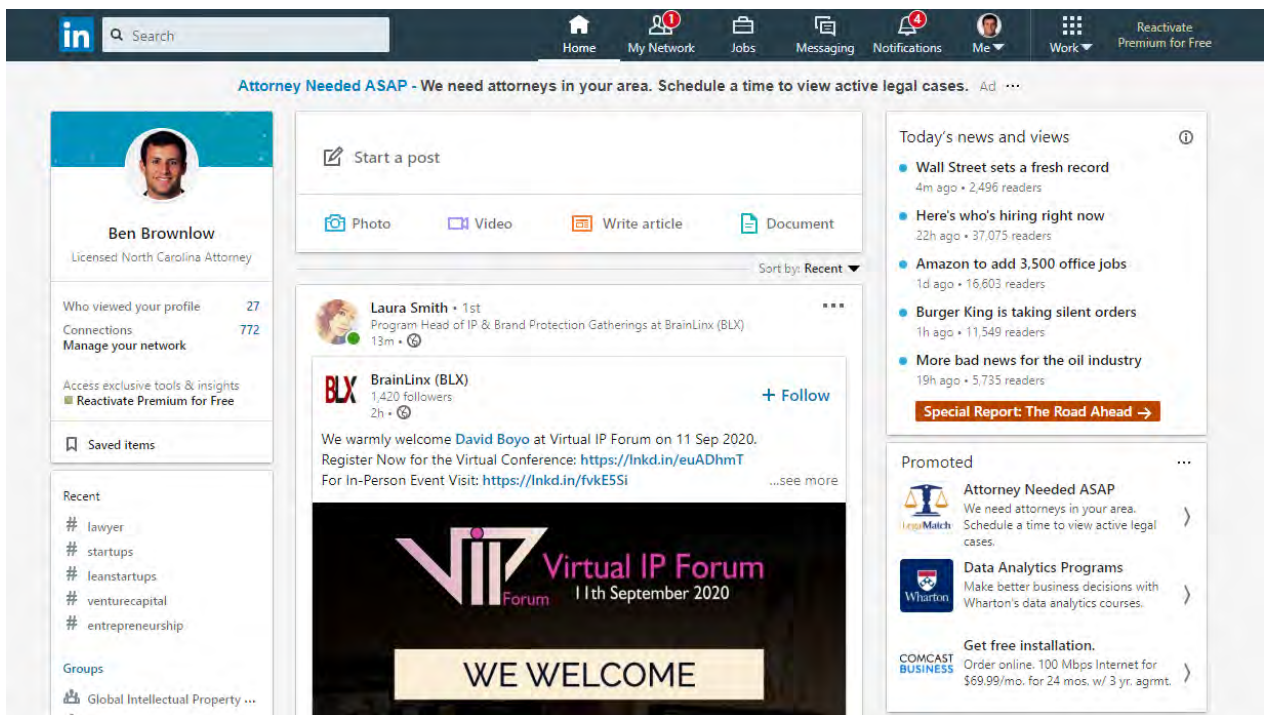
13 190. Microsoft was made aware of the '287 patent and its infringement thereof at least
14 as early as July 27, 2019 when Express Mobile provided notice of Microsoft's infringement of
15 the '287 patent to Dev Stahlkopf, General Counsel of Microsoft. Since at least the time
16 Microsoft received notice, Microsoft has induced others to infringe at least one claim of the '287
17 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful
18 blindness, actively aiding and abetting others to infringe, including but not limited to Microsoft's
19 clients, customers, and end users, whose use of the Accused Instrumentality constitutes direct
20 infringement of at least one claim of the '287 patent. In particular, Microsoft's actions that aid
21 and abet others such as customers and end users to infringe include advertising and distributing
22 the Accused Instrumentality and providing instruction materials, training, and services regarding
23 the Accused Instrumentality. *See e.g.*, microsoft.com, support.microsoft.com,
24 <https://support.microsoft.com/en-us/office>, <https://support.microsoft.com/en-us/microsoft-365>.
25 Microsoft has engaged in such actions with specific intent to cause infringement or with willful
26 blindness to the resulting infringement because Microsoft has had actual knowledge of the '287
27 patent and knowledge that its acts were inducing infringement of the '287 patent since at least
28 the date Microsoft received notice that such activities infringed the '287 patent.

1 191. Microsoft is liable as a contributory infringer of the '287 patent under 35 U.S.C. §
2 271(c) by offering to sell, selling and importing into the United States website or web page
3 authoring tools to be especially made or adapted for use in an infringement of the '287 patent.
4 The Accused Instrumentality is a material component for use in practicing the '287 patent, is
5 specifically made and is not a staple article of commerce suitable for substantial non-infringing
6 use.

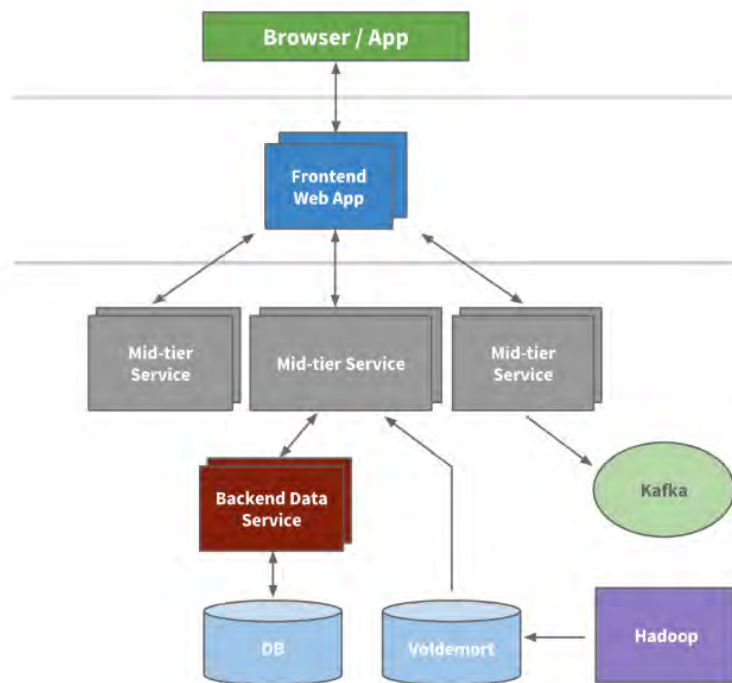
7 192. Upon information and belief, since the date of its receipt of notice, Microsoft's
8 infringement of the '287 patent has been willful and intentional under the standard announced in
9 *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least
10 July 27, 2019, Microsoft has willfully infringed the '287 patent by refusing to take a license and
11 continuing to make, use, test, sell, license, and/or offer for sale/license the Accused
12 Instrumentality. Microsoft has been aware that it infringes the '287 patent since at least July 27,
13 2019 and instead of taking a license, Microsoft has opted to make the business decision to
14 "efficiently infringe" the '287 patent. In doing so, Microsoft willfully infringed the '287 Patent.

15 193. Microsoft's infringement has damaged and injured and continues to damage and
16 injure Express Mobile.

17 194. LinkedIn generates code to provide content on the display of a device for each of its
18 users (the "Accused Instrumentality").
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195. The Accused Instrumentality includes memory to store user selections and other information relating to a user's web site, web pages, and the web components or elements that are intended to be displayed.



An example multi-tier service oriented architecture within LinkedIn



Source: <https://engineering.linkedin.com/architecture/brief-history-scaling-linkedin>

1 196. The Accused Instrumentality includes the ability to select web components to display
 2 on a webpage, such as “Create a Poll,” which is a symbolic name for evoking one or more web
 3 component relating to a set of inputs and outputs of a web service obtainable over a network.

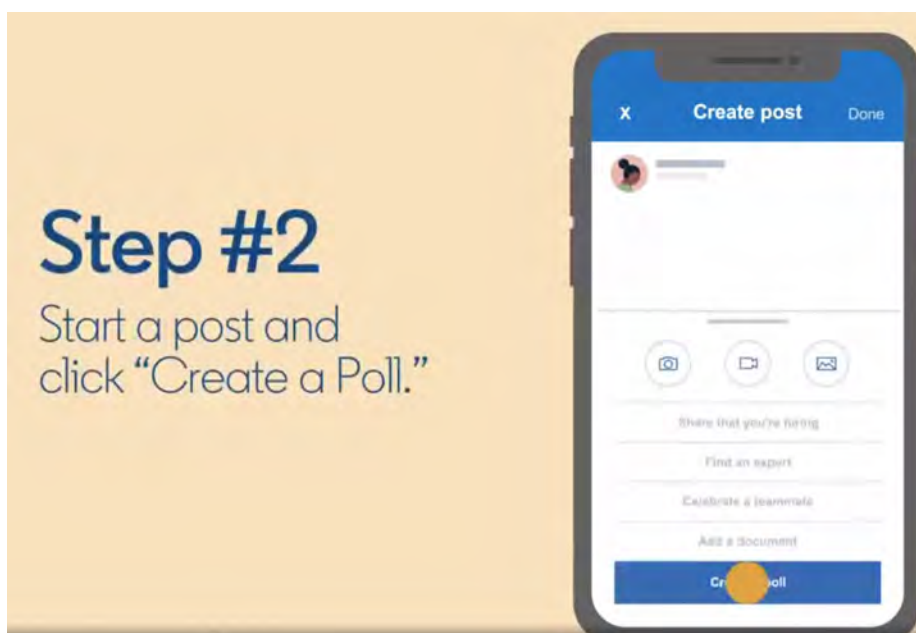
4 Create LinkedIn Polls

5 You can create a poll from [LinkedIn’s homepage](#). If you’re an admin of a [LinkedIn Page](#), or a [LinkedIn Group](#)
 6 you can create a poll directly from the page or group’s homepage.

7 To create a poll from your homepage:

- 8 1. Click  **Start a post**.
- 9 2. Click **Create a poll**.
- 10 3. In the **Create a poll** window, type your question and fill in the options.
 - There is a minimum of two options and a maximum of four options on a poll.
 - Click **+Add option** to add another option.
- 11 4. Select the **Poll duration** from the dropdown.
 - The default duration is one week.
- 12 5. Click **Next**.
- 13 6. Click the  **Edit** icon to edit the post.
 - Select who you want to **share the poll with**.
- 14 7. You can add more to the post in the **What do you want to talk about?** field (optional).
- 15 8. Click **Post**.

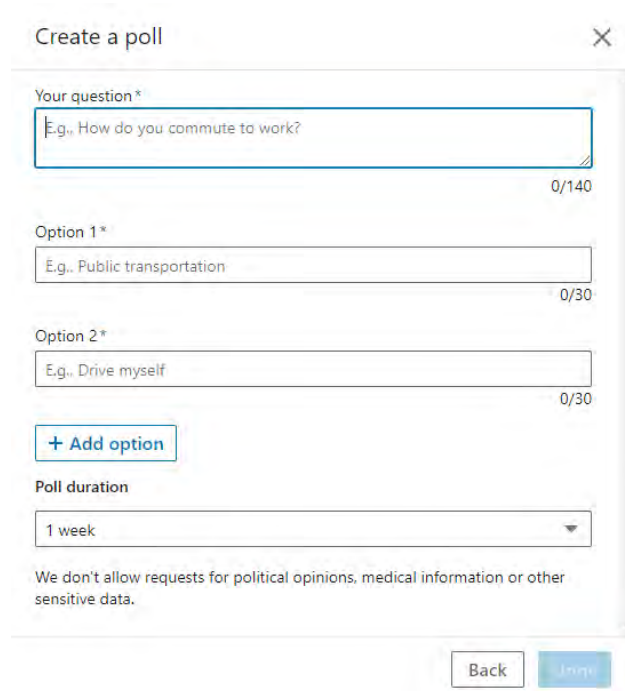
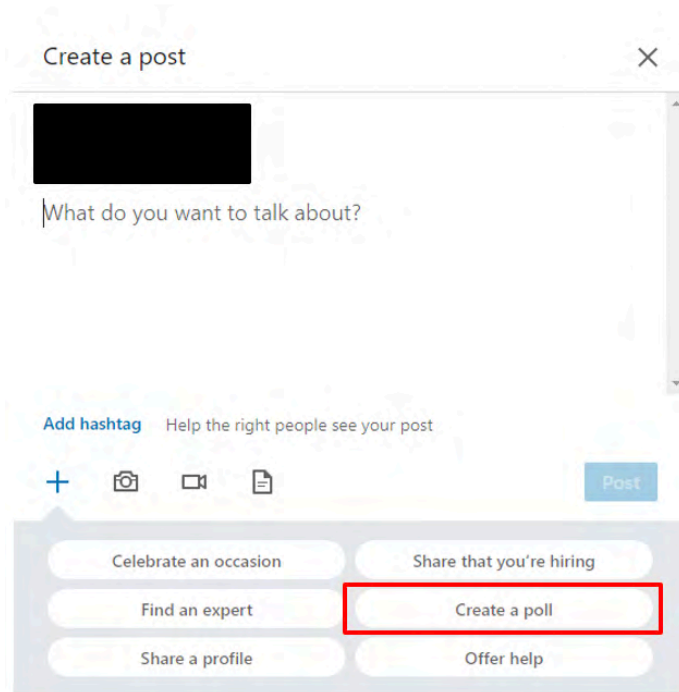
16 **Source:** <https://www.linkedin.com/help/linkedin/answer/119595/create-linkedin-polls?lang=en>



27 **Source:** <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>

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1 197. For example, the “Create a Poll” web component corresponds to a number of user
 2 interface (UI) objects, which the user may select between. One of the choices listed in the selection
 3 panel is the “Create a Poll” which has its own UI objects that support the data format type of “Create
 4 a Poll,” which takes the user inputs and generates new event outputs.



1 198. The Accused Instrumentality's web components include an address of the web
2 service.

The screenshot shows the KeyCDN IP Location Finder interface. At the top, there is a navigation bar with 'Features', 'Solutions', 'Network', 'Pricing', and a search icon. On the right, there are links for 'Support', 'Login', and a 'Sign Up' button. The main content area is titled 'IP Location Finder' and includes a search input field with 'www.linkedin.com' entered. A 'Find' button is to the right of the input. Below the search field, the results are displayed in two sections: 'LOCATION' and 'NETWORK'. The 'LOCATION' section lists: Country: United States (US), Continent: North America (NA), Coordinates: 37.751 (lat) / -97.822 (long), and Time: 2020-08-19 09:26:08 (America/Chicago). The 'NETWORK' section lists: IP address: 13.107.42.14, Hostname: 13.107.42.14, Provider: MICROSOFT-CORP-MSN-AS-BLOCK, and ASN: 8068. On the left side, there is a sidebar with categories: Web, Network (selected), Security, and Other. Under 'Network', there are links for 'IP Location Finder', 'DNS Checker', 'Ping Test', 'Ping IPv6 Test', 'Traceroute Test', and 'BGP Looking Glass'. On the right side, there is a 'Rollout' advertisement with the text 'Manage, Deploy & Measure Features at Scale with Rollout. Free 14 Day Trial.' and a 'Get v3 Carbon' link.

3 **Source:** <https://tools.keycdn.com/geo?host=www.linkedin.com>

4 If you are using IPvFoo on a Chrome browser, you should see something like this. Note the number 6 on the right side of the URL
5 -- this means you are visiting www.linkedin.com via IPv6.

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Headers | Preview | Response | Cookies | Timing
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Remote Address: 2620:109:c006:1821:6cae:281:643
Request URL: https://www.linkedin.com/home?trk=nav_responsive_tab_home
Request Method: GET
Status Code: 200 OK
Request Headers
Accept: text/html,application/xhtml+xml,application/javascript;q=0.9,image/webp,*/*;q=0.8
Accept-Encoding: gzip, deflate, sdch
Accept-Language: en-US,en;q=0.8
Connection: keep-alive

```

If you want to look under the hood in advanced mode, right click on a LinkedIn page and click on Inspect Element. This will
expose the HTTP header where you can see that we are serving an IPv6 address to you. It should look something like this.



Source: <https://engineering.linkedin.com/ipv6/permanent-launch-ipv6>

199. The Accused Instrumentality includes an authoring tool that allow the user to define
a UI object to be displayed. For example, one of the web components "Create a Poll" allows the
user to create a post and add a poll, which consists of an input and an output of the LinkedIn Polls
web service.

Create LinkedIn Polls

You can create a poll from [LinkedIn's homepage](#). If you're an admin of a [LinkedIn Page](#), or a [LinkedIn Group](#) you can create a poll directly from the page or group's homepage.

To create a poll from your homepage:

1. Click  **Start a post**.
2. Click **Create a poll**.
3. In the **Create a poll** window, type your question and fill in the options.
 - There is a minimum of two options and a maximum of four options on a poll.
 - Click **+Add option** to add another option.
4. Select the **Poll duration** from the dropdown.
 - The default duration is one week.
5. Click **Next**.
6. Click the  **Edit** icon to edit the post.
 - Select who you want to **share the poll with**.
7. You can add more to the post in the **What do you want to talk about?** field (optional).
8. Click **Post**.

Source: <https://www.linkedin.com/help/linkedin/answer/119595/create-linkedin-polls?lang=en>

Create a poll
✕

Your question *

E.g., How do you commute to work?

0/140

Option 1 *

E.g., Public transportation

0/30

Option 2 *

E.g., Drive myself

0/30

+ Add option

Poll duration

1 week

We don't allow requests for political opinions, medical information or other sensitive data.

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Andrew Seaman • 2nd
LinkedIn news editor for job seekers and #GetHir...
1mo • 🌐

+ Follow ...

Let's try something fun: A non-scientific poll!

While all of these items are part of a successful job search, I want to know what you think is THE most important element.

Use the buttons below to select your answer.

#GetHired #Hiring #Jobs

What's the most important element of a successful job search?

The author can see how you vote. [Learn more](#)

Strong network	60%
Powerful resume	20%
Healthy social media presence	0%
Strategy	20%

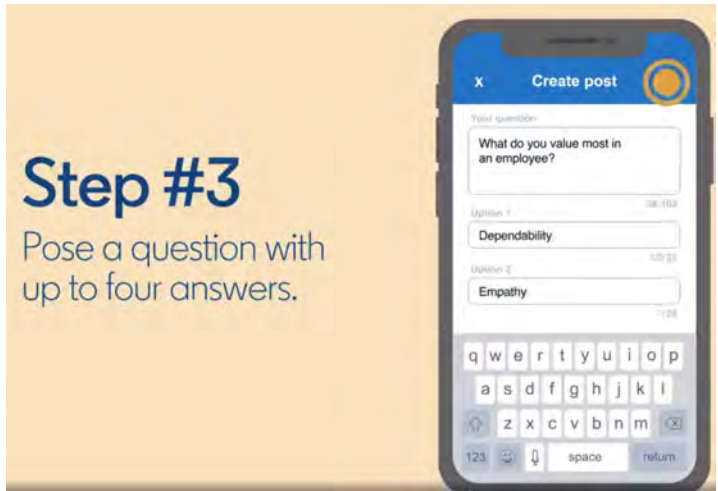
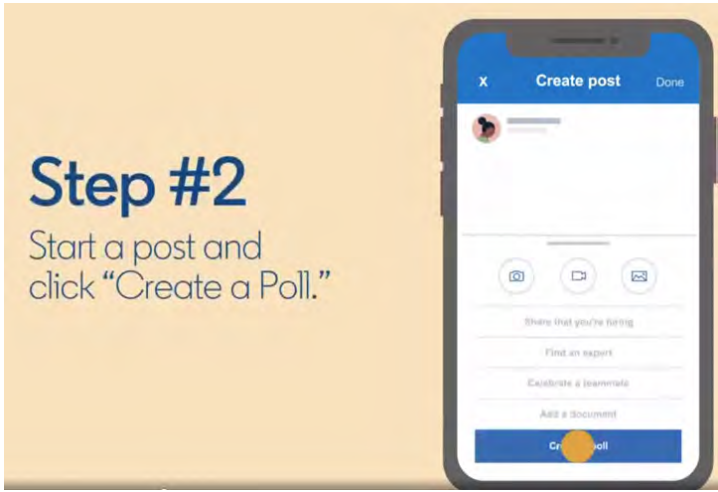
15 votes • Poll closed

👍 2

Source: <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>

200. When a user of the Accused Instrumentality uses the authoring tool to author a post including a poll, such as the following example where the user is polling her network to determine the most important element of a successful job search, the authoring tool accesses the computer memory to select the associated UI objects to allow the user to do so. Once selected, the Accused Instrumentality associates the symbolic name— “Create a Poll”—with the selected defined UI object. The “Create a Poll” symbolic name is only available to corresponding UI objects.

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Source: <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>

Create LinkedIn Polls

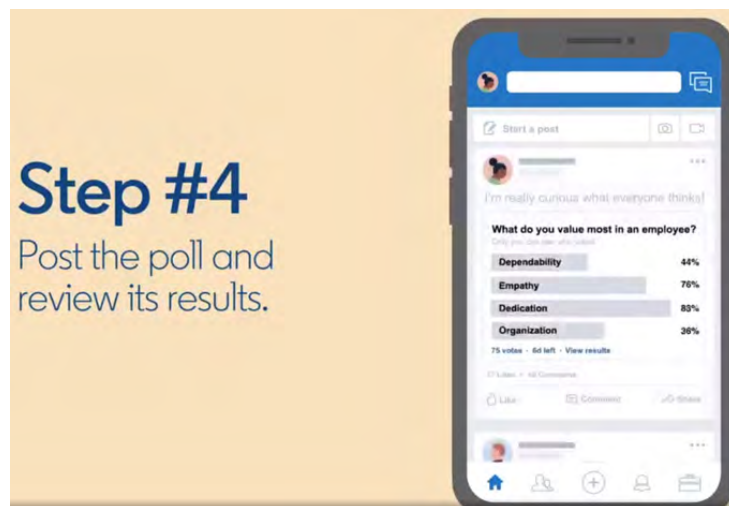
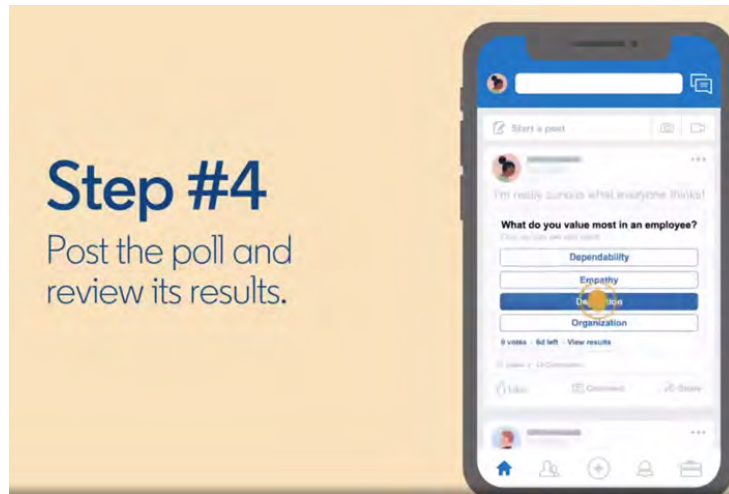
You can create a poll from [LinkedIn's homepage](#). If you're an admin of a [LinkedIn Page](#), or a [LinkedIn Group](#) you can create a poll directly from the page or group's homepage.

To create a poll from your homepage:

1. Click **Start a post**.
2. Click **Create a poll**.
3. In the **Create a poll** window, type your question and fill in the options.
 - There is a minimum of two options and a maximum of four options on a poll.
 - Click **+Add option** to add another option.
4. Select the **Poll duration** from the dropdown.
 - The default duration is one week.
5. Click **Next**.
6. Click the **Edit** icon to edit the post.
 - Select who you want to **share the poll with**.
7. You can add more to the post in the **What do you want to talk about?** field (optional).
8. Click **Post**.

Source: <https://www.linkedin.com/help/linkedin/answer/119595/create-linkedin-polls?lang=en>

1 203. In the example below, the Accused Instrumentality stores the “What do you value
2 most in an employee?” selections made by the user and retrieves those selections for displaying to
3 the user’s network.

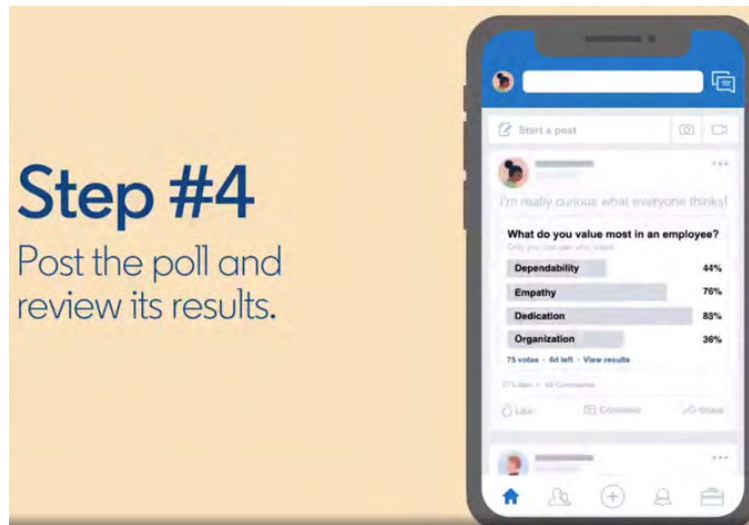
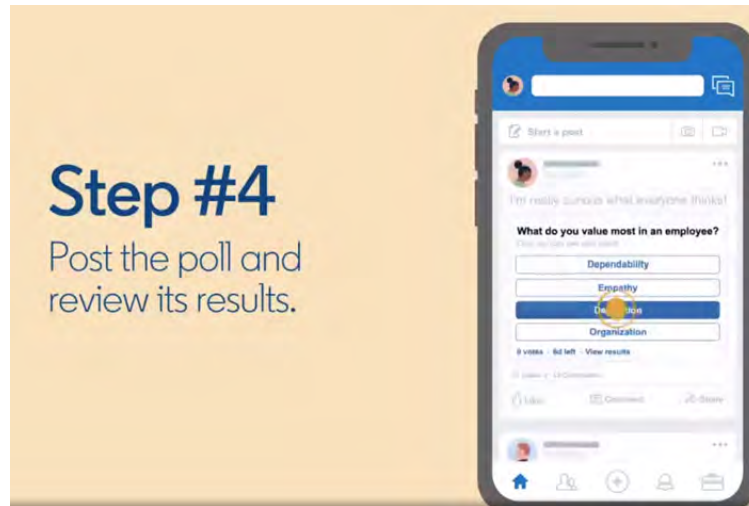


20 **Source:** <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>

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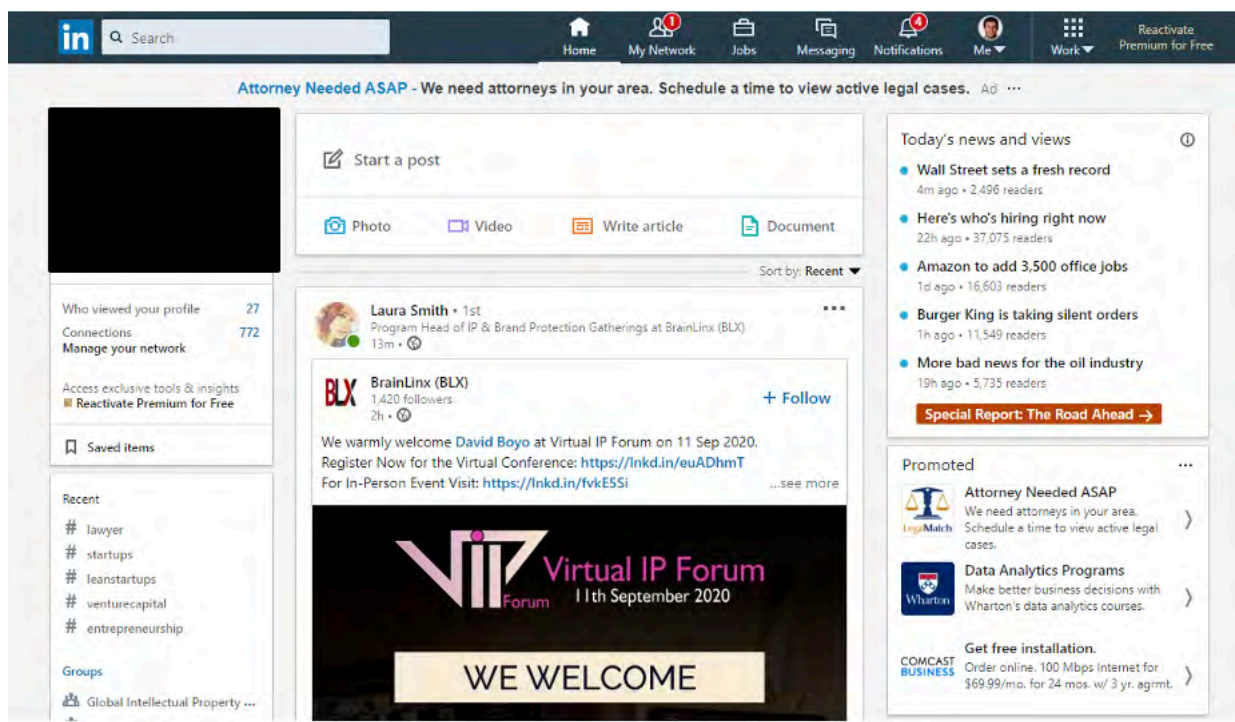
22 204. The Accused Instrumentality includes a player or code that utilizes information
23 stored in its database to generate for display one or more web pages as shown below. The
24 application is provided, for example, in the form of JavaScript files and associated data for the web
25 page view(s) that are stored in the LinkedIn database. When a browser is used to access the
26 Accused Instrumentality, it uses a player which interacts with the application and data stored on
27 the LinkedIn server. The player accesses and renders the data to generate the. web page viewed by
28 the user. The player operates with the virtual machine (for example, Microsoft Internet Explorer

1 uses the Trident or Blink virtual machine, depending on the software version) and the information
 2 stored in the database in order to generate and display at least a portion of one or more web pages.
 3 The player includes code that is device-dependent in order to allow the environment to work across
 4 a variety of devices such as personal computers (including laptops and desktops), tablets, and
 5 mobile phones.



23 **Source:** [https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-](https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls)
 24 [network-with-polls](https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls)

25 205. As described above and shown below, when a browser accesses the Accused
 26 Instrumentality or views a LinkedIn Story poll generated by LinkedIn, the application is provided
 27 to the device in the form of JavaScript files and other assets. The player code operates with the
 28 virtual machine to interpret this JavaScript and execute it locally.



Navigate the LinkedIn Mobile App

The **LinkedIn mobile app** is available from your phone's app store and allows you to access your LinkedIn account from your mobile device.

To access **your profile**, account settings, and information about **who's viewed your profile**, tap on your profile picture in the top left corner.

From the top of your homepage, you can also:

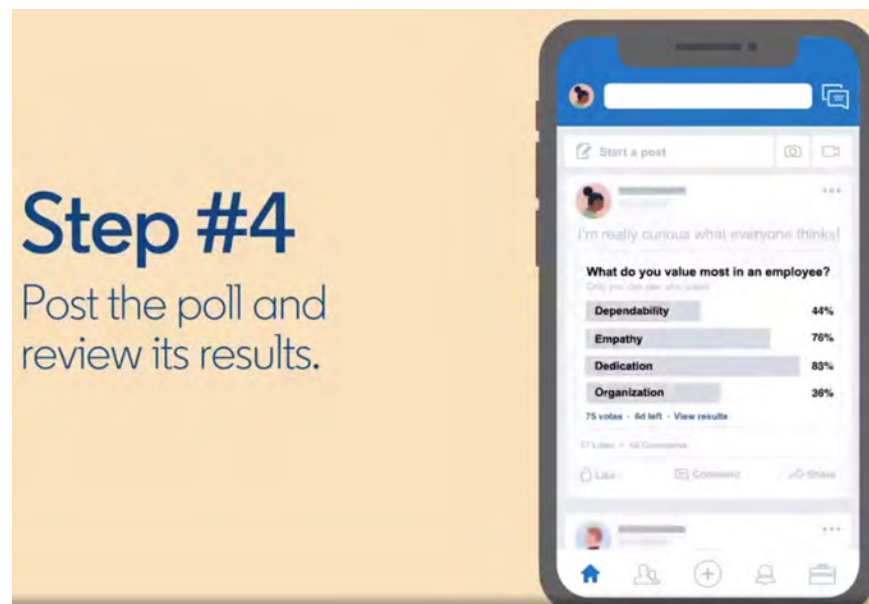
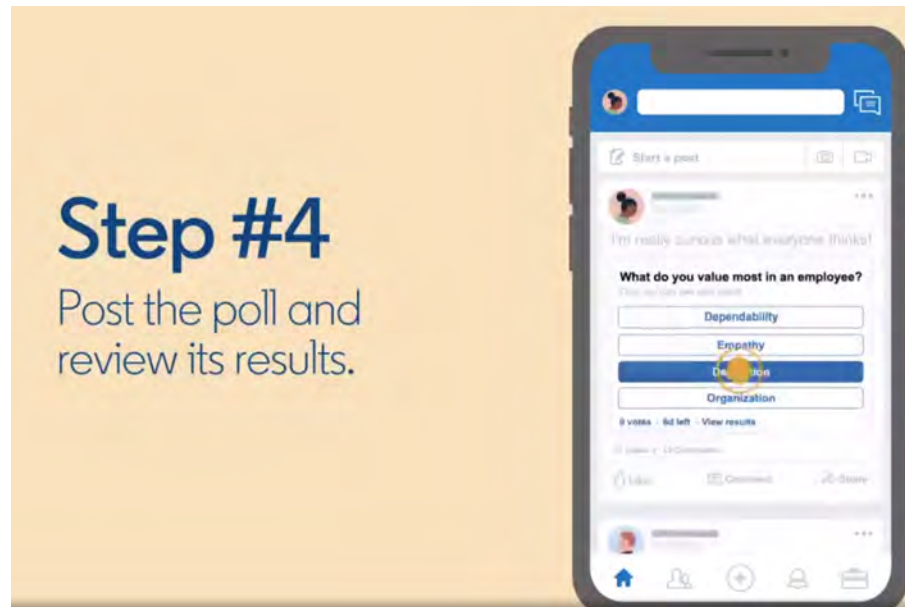
- Use the search bar to **search** LinkedIn for relevant people, companies, jobs, or hashtags.
- Use the **Messaging** tab to have **professional conversations with your connections**.

Additional tabs can be found at the bottom of your homepage. You can navigate between tabs on the LinkedIn mobile app by tapping the icons in the navigation bar:

Source: <https://www.linkedin.cn/help/linkedin/mobile-apps/15001/15007/62636>

206. The Accused Instrumentality web pages accept input from the user of a device related to the defined UI object, input which is then provided to a web service. The web pages receive the output from the web service and provide instructions for the display of the device to present the output value in the defined UI object. The player code on the device operates with the virtual machine to execute the JavaScript instructions provided with LinkedIn in order to receive the output symbolic

1 name and output value. The instructions also provide for the display of this output value in the UI
 2 object in order to display the appropriate data to the user. This output value is presented in the UI
 3 object for display on the device to the user.



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Source: <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>

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207. LinkedIn was made aware of the '287 patent and its infringement thereof at least as early as October 26, 2020 when Express Mobile provided notice of LinkedIn's infringement of the '287 patent to Blake Lawit, SVP and General Counsel of LinkedIn Corporation. Since at

1 least the time LinkedIn received notice, LinkedIn has induced others to infringe at least one
2 claim of the '287 patent under 35 U.S.C. § 271(b) by, among other things, and with specific
3 intent or willful blindness, actively aiding and abetting others to infringe, including but not
4 limited to LinkedIn's clients, customers, and end users, whose use of the Accused
5 Instrumentality constitutes direct infringement of at least one claim of the '287 patent. In
6 particular, LinkedIn's actions that aid and abet others such as customers and end users to infringe
7 include advertising and distributing the Accused Instrumentality and providing instruction
8 materials, training, and services regarding the Accused Instrumentality. *See e.g.*,
9 www.linkedin.com; <https://www.linkedin.com/help/linkedin?lang=en>;
10 [https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-](https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls)
11 [with-polls](https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls); <https://engineering.linkedin.com/ipv6/permanent-launch-ipv6>;
12 <https://www.linkedin.com/help/linkedin/answer/119595/create-linkedin-polls?lang=en>;
13 <https://www.linkedin.cn/help/linkedin/mobile-apps/15001/15007/62636>; and related domains
14 and subdomains. LinkedIn has engaged in such actions with specific intent to cause infringement
15 or with willful blindness to the resulting infringement because LinkedIn has had actual
16 knowledge of the '287 patent and knowledge that its acts were inducing infringement of the '287
17 patent since at least the date LinkedIn received notice that such activities infringed the '287
18 patent.

19 208. LinkedIn is liable as a contributory infringer of the '287 patent under 35 U.S.C. §
20 271(c) by offering to sell, selling and importing into the United States website or web page
21 authoring tools to be especially made or adapted for use in an infringement of the '287 patent.
22 The Accused Instrumentality is a material component for use in practicing the '287 patent, is
23 specifically made and is not a staple article of commerce suitable for substantial non-infringing
24 use.

25 209. LinkedIn's infringement has damaged and injured and continues to damage and
26 injure Express Mobile.

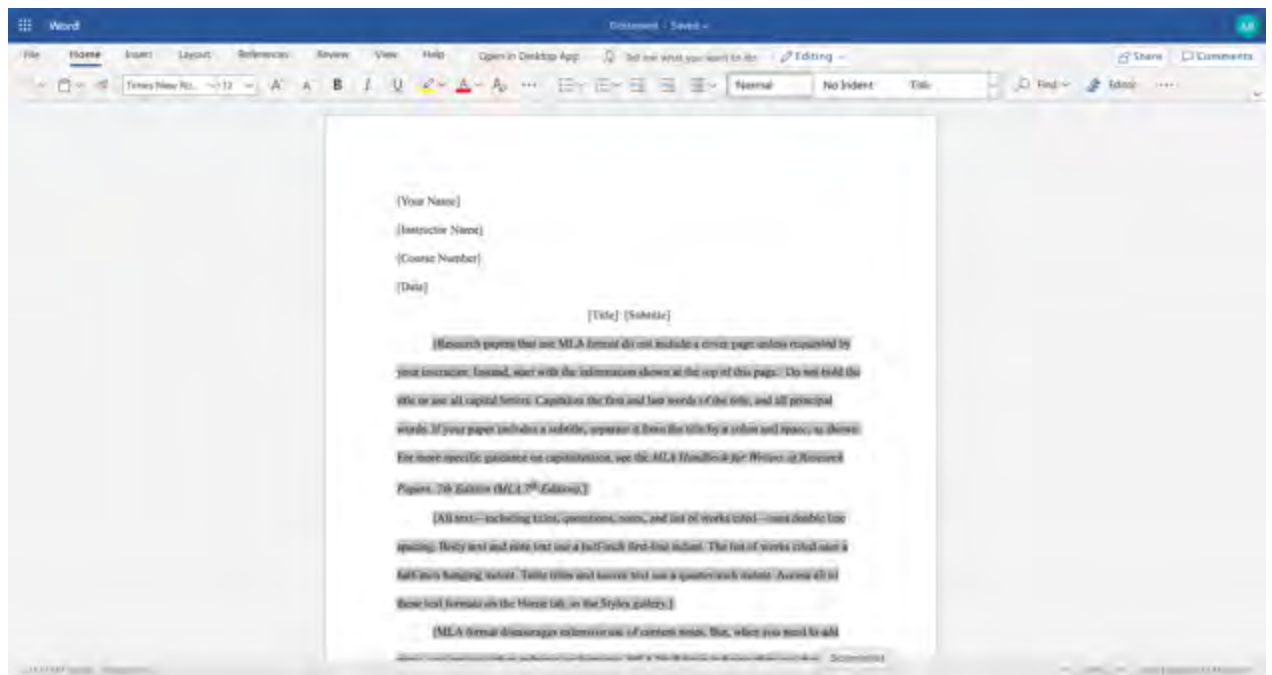
COUNT V - INFRINGEMENT OF U.S. PATENT NO. 9,063,755

210. Plaintiff incorporates by reference the allegations contained in paragraphs 1 to 209 above.

211. Microsoft has manufactured, used, sold, offered to sell and/or provided and continues to manufacture, use, sell, offer for sale and/or provide its browser-based version of the Microsoft Office Web App which comprises a system to generate code to provide content on a display of a device (the “Accused Instrumentality”) that infringes, either literally or under the doctrine of equivalents, one or more claims of the ’755 patent in violation of 35 U.S.C. § 271(a).

212. Upon information and belief, Microsoft has directly infringed at least claim 1 of the ’755 patent through its Accused Instrumentality that generates code to provide content on a display of a device.

213. The Accused Instrumentality is a system for generating code to provide content on a display of a device. The Accused Instrumentality server delivers browser-based versions of Word, PowerPoint, Excel, and OneNote. For example, the Word Web App (shown below) generates code to provide the content below on a display of a user device, such as a desktop computer, laptop, tablet, and/or smart phone.

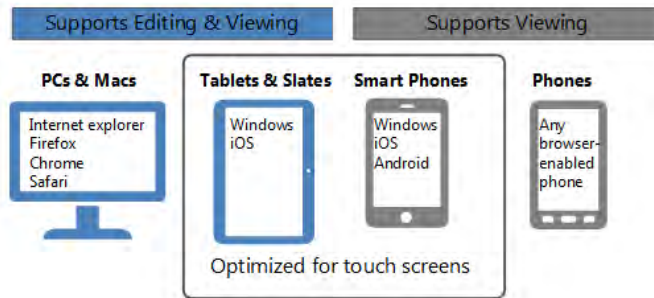


How SharePoint 2013 uses Office Web Apps Server for viewing and editing Office documents

When used with SharePoint Server 2013, Office Web Apps Server provides updated versions of Word Web App, Excel Web App, PowerPoint Web App, and OneNote Web App. Users can view and, in some cases, edit Office documents in SharePoint libraries by using a supported web browser on computers and on many mobile devices, such as Windows Phones, iPhones, iPads, and Windows 8 tablets. Among the many new features in Office Web Apps, improved touch support and editing capabilities enable users of iPads and Windows 8 tablets to enjoy editing and viewing Office documents directly from their devices.

The following illustration summarizes the viewing and editing capabilities of Office Web Apps on different kinds of devices.

Viewing and editing capabilities of Office Web Apps

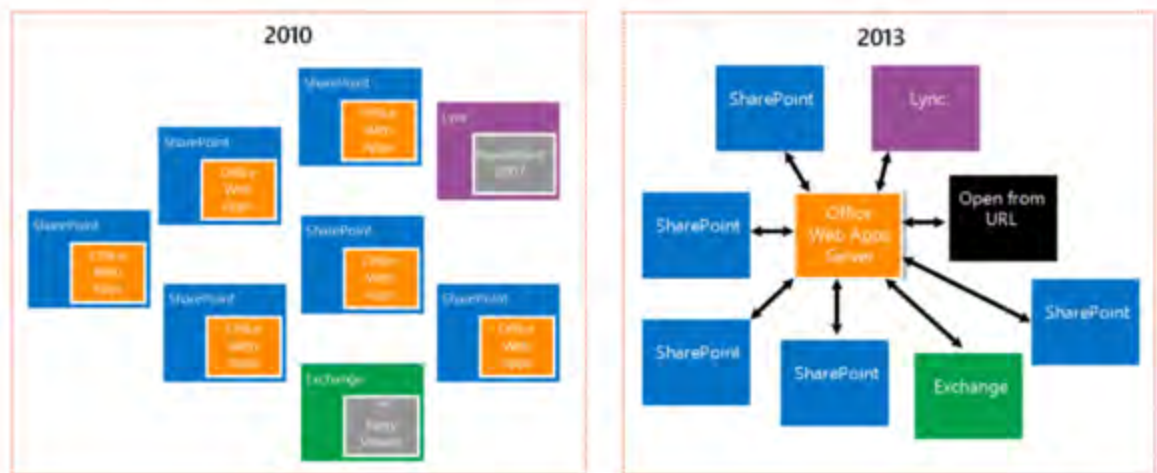


Source: <https://docs.microsoft.com/en-us/webappsserver/office-web-apps-server-overview>

214. The Accused Instrumentality stores the content and settings adjustments in a database, both locally and on Microsoft’s external database servers.

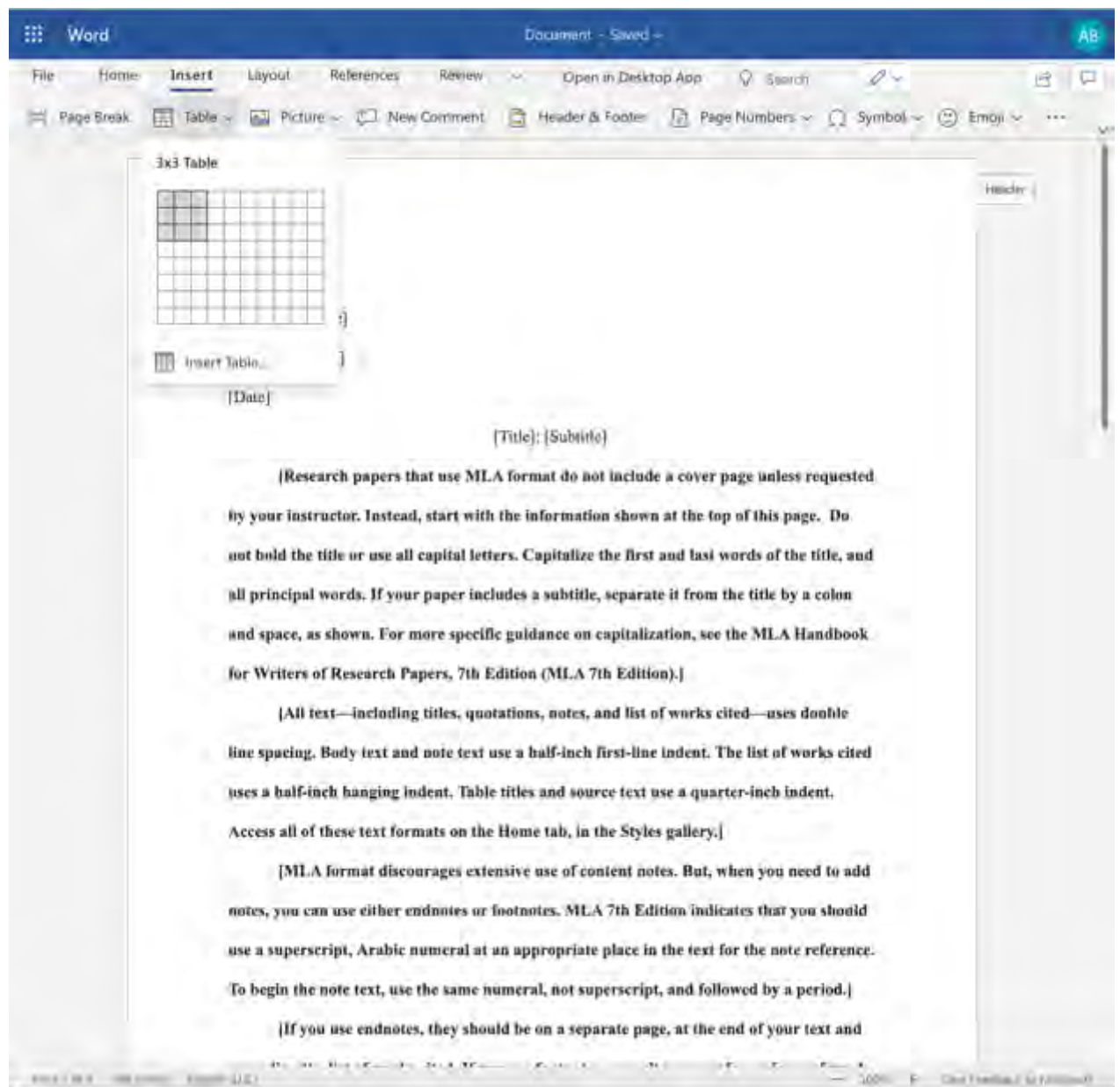
Differences between the Office Web Apps deployment models

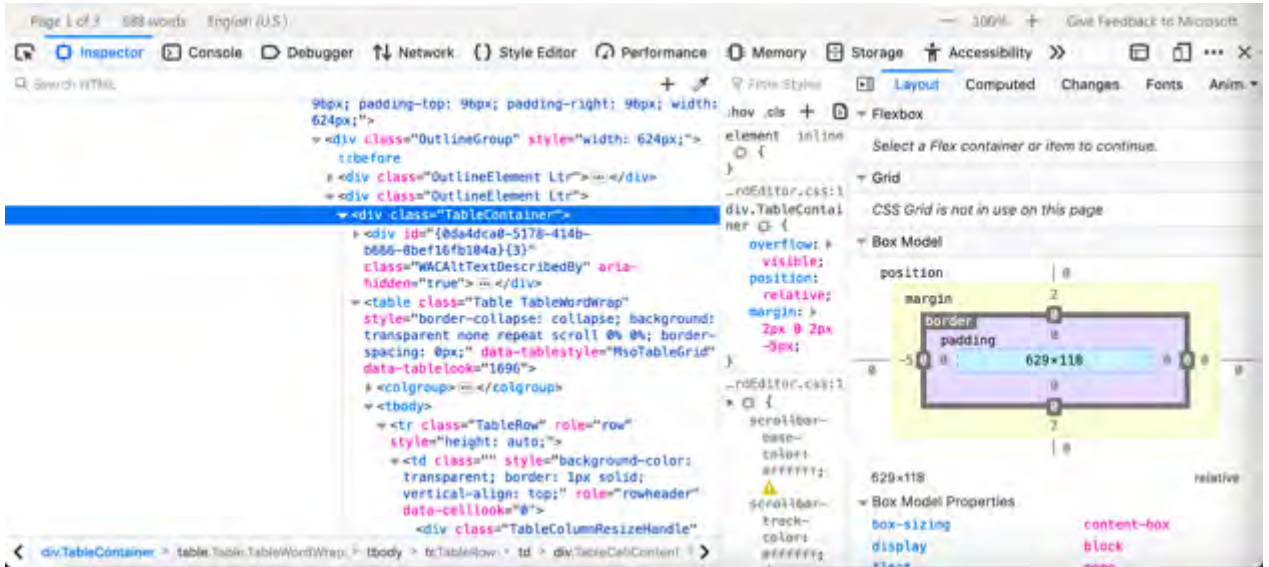
Office Web Apps then and now



Source: <https://docs.microsoft.com/en-us/webappsserver/office-web-apps-server-overview>

1 215. The various menus in the Accused Instrumentality include symbolic names for
 2 web components such as “Table” and “TableContainer,” a component that can be evoked by the
 3 corresponding symbolic name. The Table component is related to table inputs and display
 4 outputs of the Accused Instrumentality web service, obtained over a network by the user. The
 5 component’s name is a character string that is not a persistent address or pointer to an output
 6 value. The Table component is associated with a data format class type corresponding to a
 7 subclass of UI objects (in this case, Tables in a Word document), and where this symbolic name
 8 has a preferred UI object (the Table).

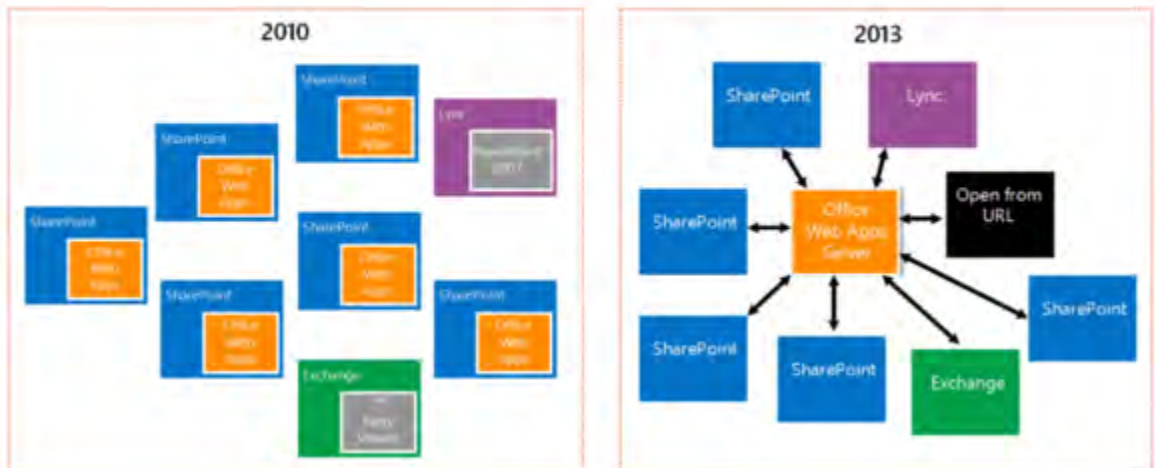




216. When a user accesses a document via the Accused Instrumentality, that document has a persistent address that is stored in the database to allow users to return to and consistently access or share a particular document.

Differences between the Office Web Apps deployment models

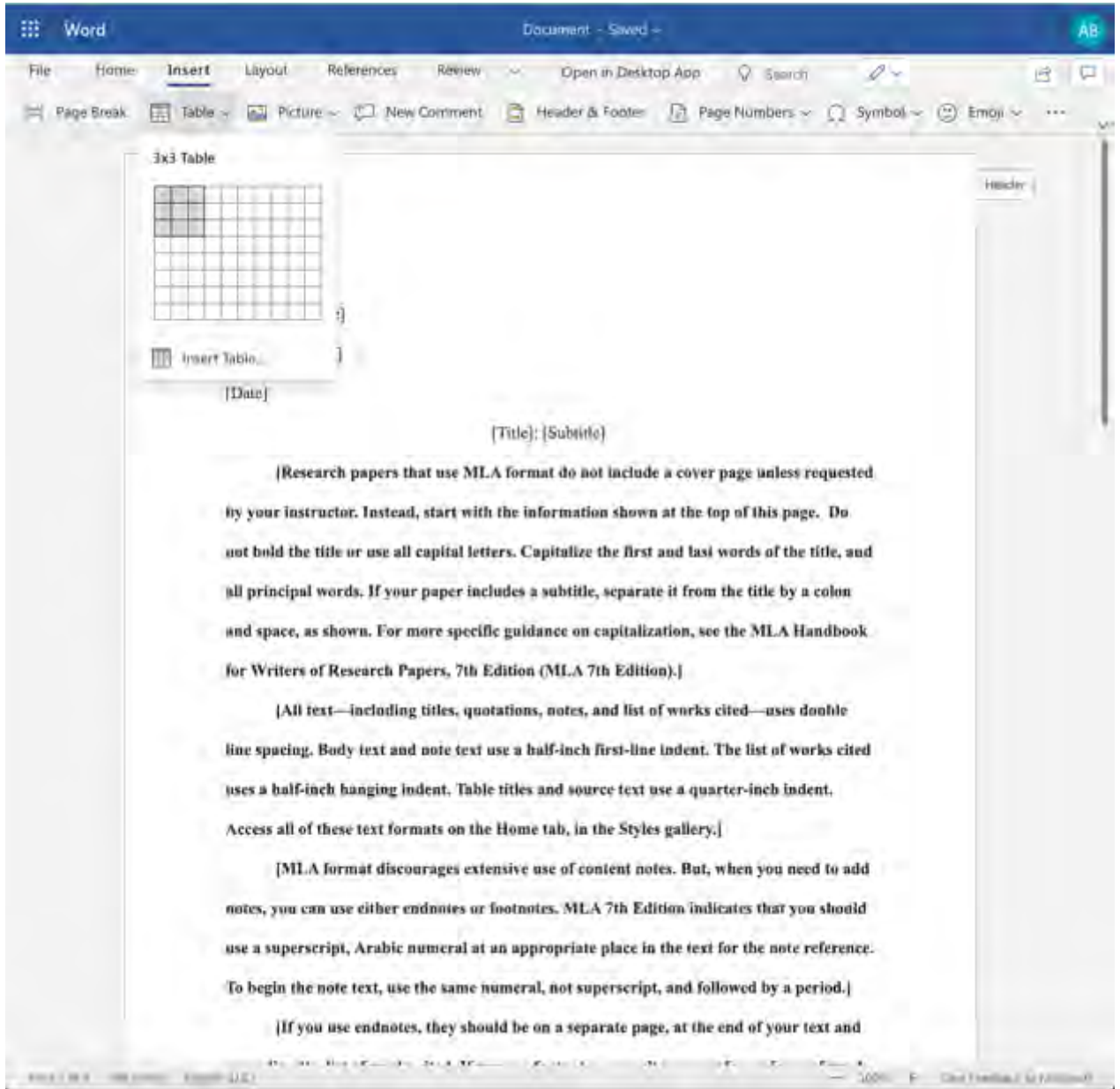
Office Web Apps then and now

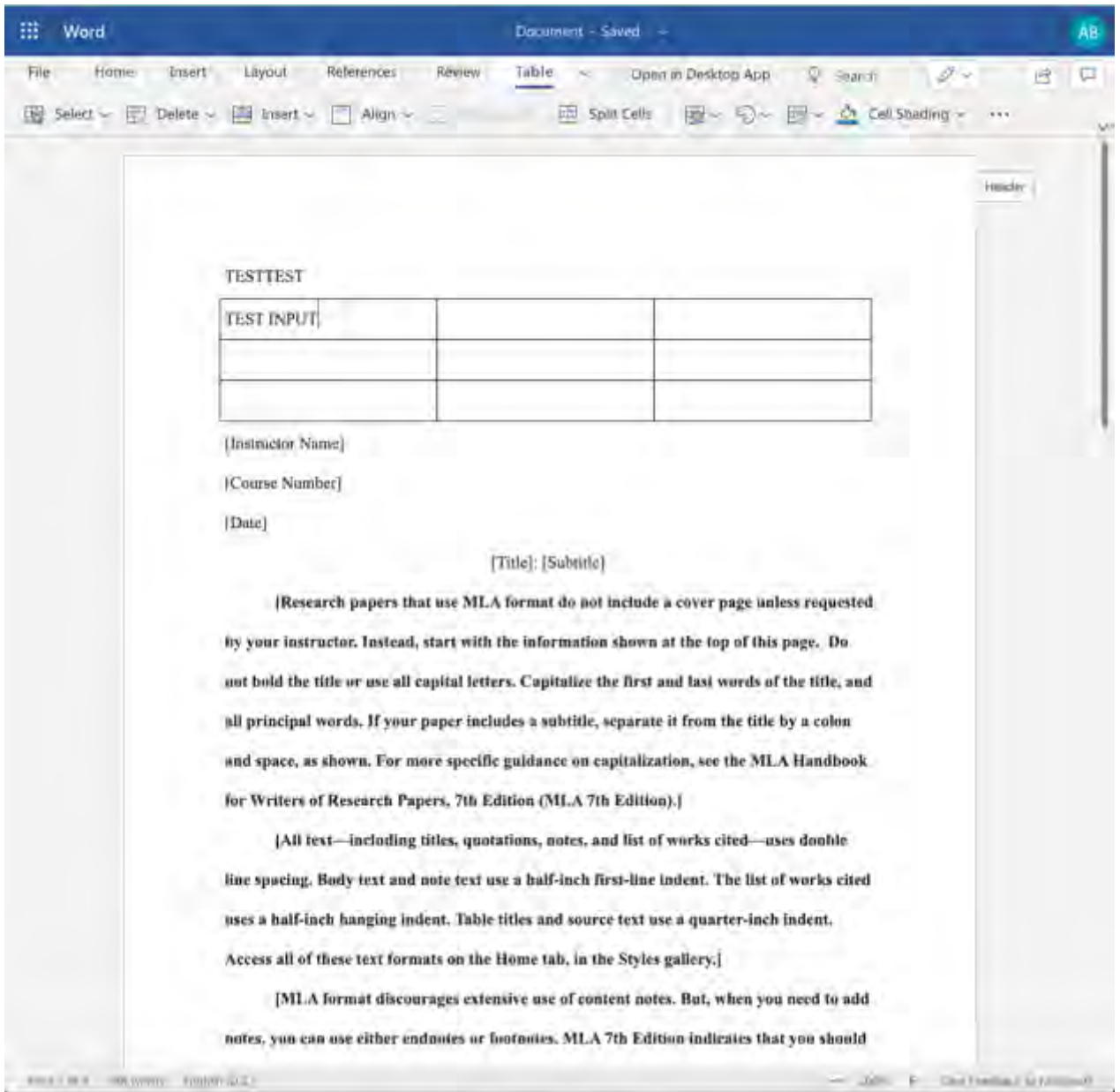


Source: <https://docs.microsoft.com/en-us/webappserver/office-web-apps-server-overview>

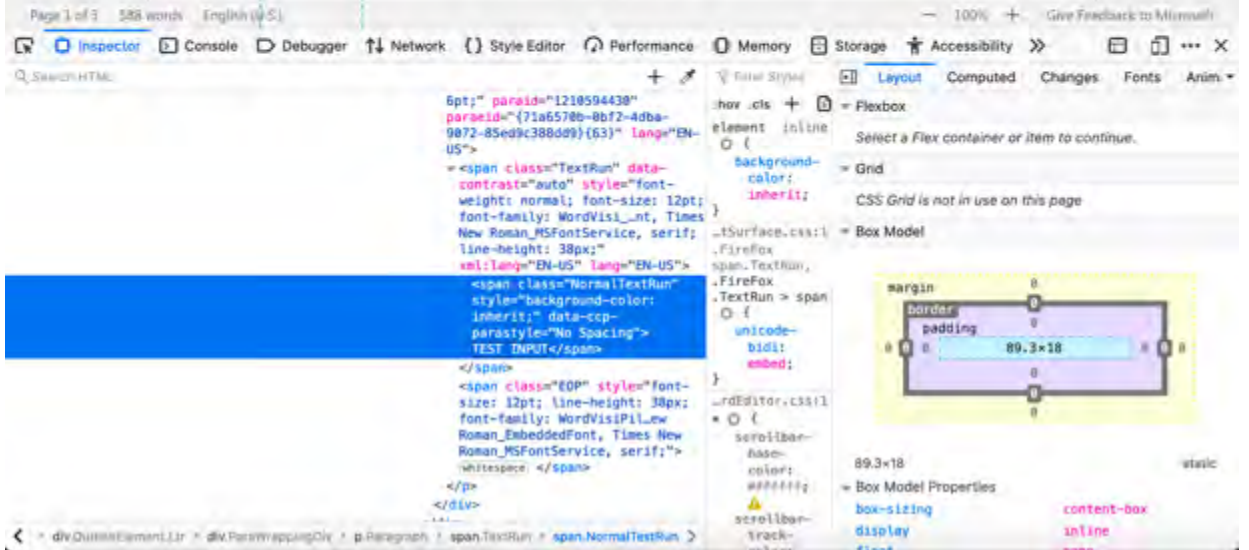
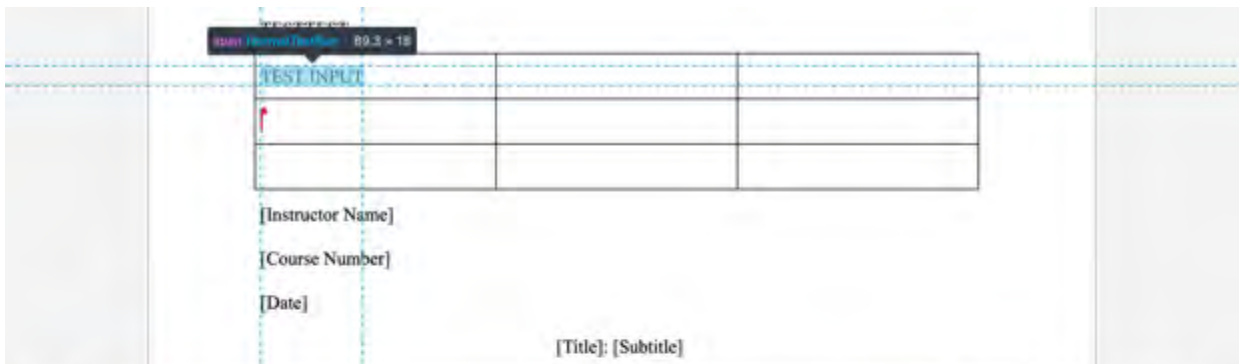
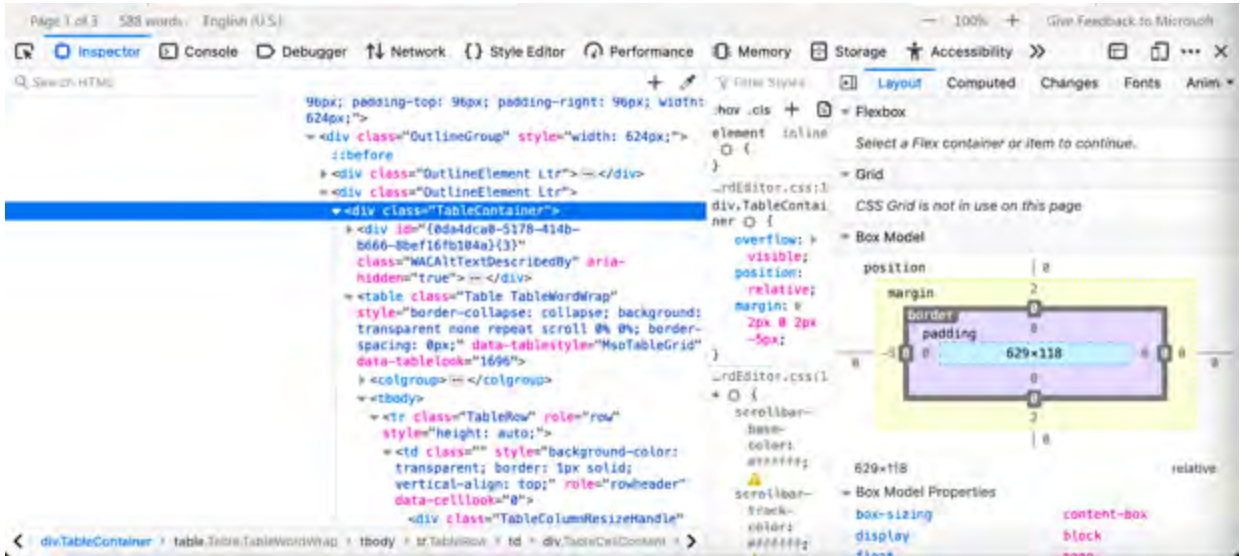
217. The Accused Instrumentality has an authoring tool configured to define a UI object for presentation on the display. The defined UI object corresponds to the web component

1 included in said registry selected from the group consisting of an input of the web service and an
 2 output of the web service. For example, the various menus in the Accused Instrumentality
 3 include symbolic names for web components such as “Table” and “TableContainer,” a
 4 component that can be evoked by the corresponding symbolic name. The Table component is
 5 related to table inputs and display outputs of the Accused Instrumentality web service, obtained
 6 over a network by the user.



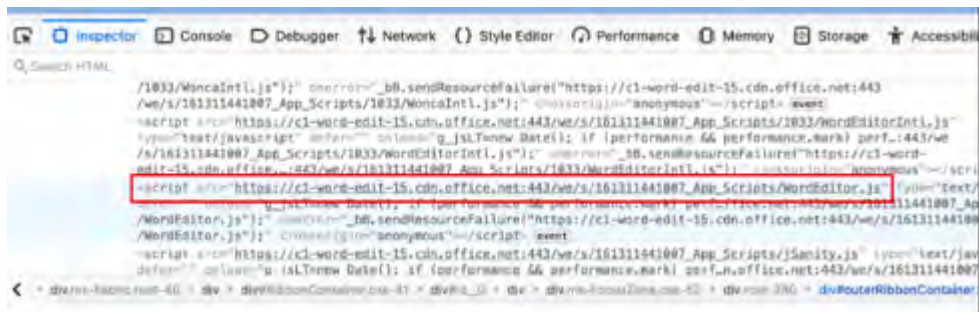


218. In the example above, the defined UI object that is selected is a Table, which is a web component of the Accused Instrumentality. The Table’s contents and settings comprise an input of the web service, and the resulting output to the user and associated parameters are an output of the web service. In this case, the defined UI object was selected by a user of the authoring tool. The authoring tool in the Accused Instrumentality is configured to access said computer memory to select the symbolic name corresponding to the web component of the defined UI object. For example, the Accused Instrumentality accesses page components such as Tables and their associated data from memory as shown below.

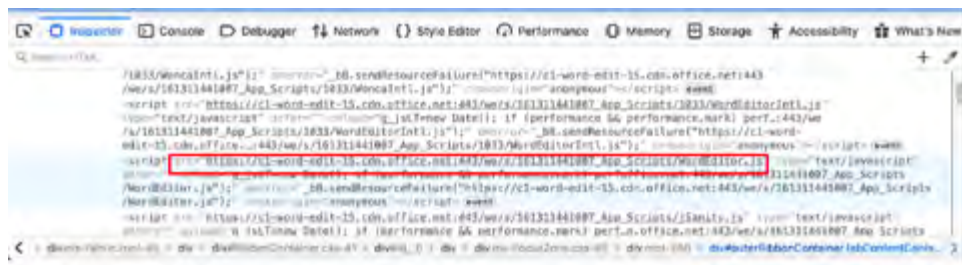


219. When the Accused Instrumentality creates a UI object, it is associated with a symbolic name unique to that type of UI object (such as a Table). The authoring tool associates this symbolic name with the defined UI object so that it can be referenced by the Accused

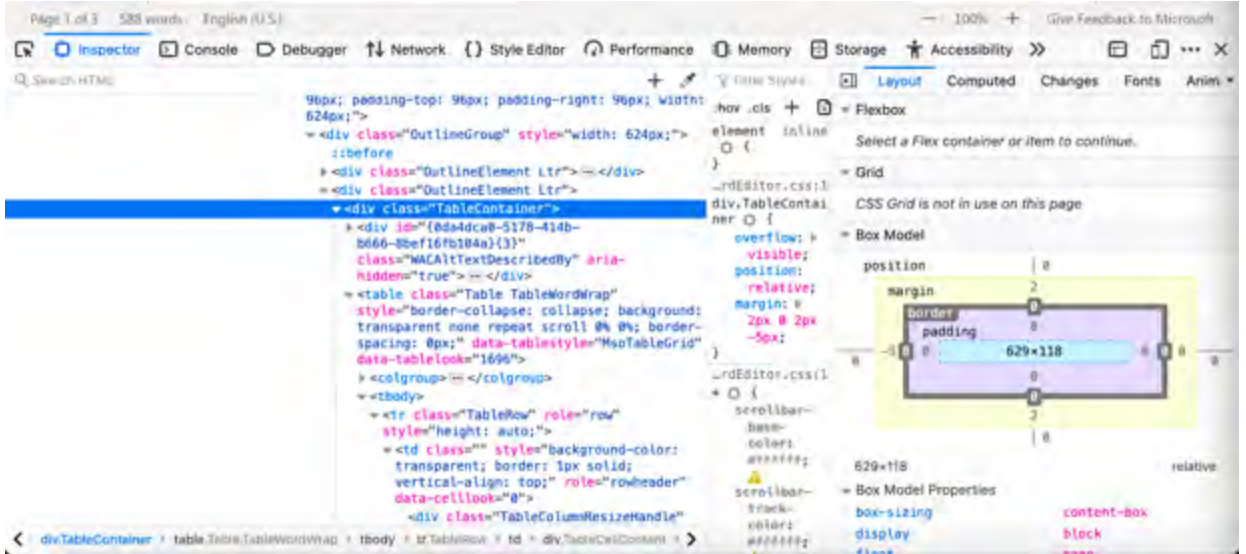
1 Instrumentality at a later time. This data will be committed to the database by the authoring tool
 2 as demonstrated below. The authoring tool in the Accused Instrumentality is configured to build
 3 an application consisting of one or more web page views from the Microsoft database. The
 4 application is provided, for example, in the form of JavaScript files and associated data for the
 5 web page views that are stored in the Microsoft database. When a browser is used to access the
 6 Accused Instrumentality, it uses a player which interacts with the application and data stored on
 7 the Microsoft server. The player accesses and renders the data to generate the web page viewed
 8 by the user. The player operates with the virtual machine (for example, Microsoft Internet
 9 Explorer uses the Trident or Blink virtual machine, depending on the software version) and the
 10 information stored in the database in order to generate and display a portion of one or
 11 more web pages. The player includes code that is device-platform-dependent in order to allow
 12 the environment to work across a variety of devices such as personal computers (including
 13 laptops and desktops), tablets, browsers, and mobile phones.

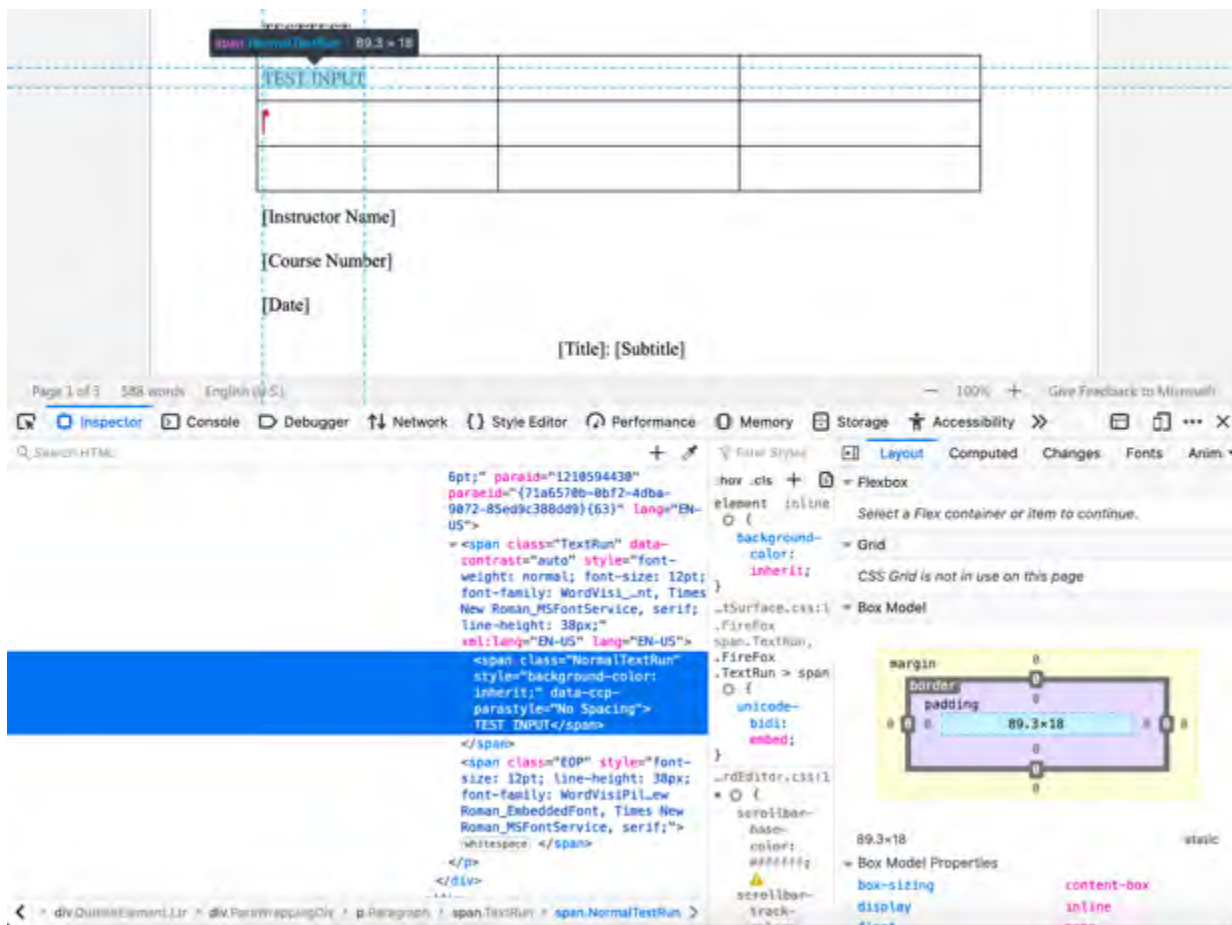


20 220. As described and shown above, when a browser accesses Web Apps built by a
 21 Microsoft user, the application is provided to the device in the form of JavaScript files and other
 22 assets. The browser's player interprets this JavaScript and executes it locally.



221. The Accused Instrumentality includes UI objects (such as text fields and tables) that are configured to receive input and generate visual output. Interaction by the user with the Accused Instrumentality allows the App to store any input values in the Microsoft database. The web service also uses that same data to generate and display output values associated with these inputs when displaying data from the database to the user.





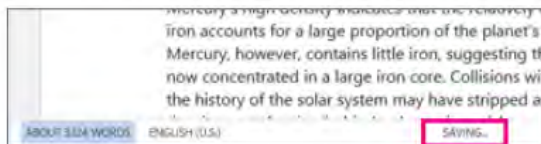
Basic tasks in Word

Word for Microsoft 365, Word for the web, Word 2019, Word 2016, Word 2013, Word 2010

Newer Versions Web Office 2013 Office 2010

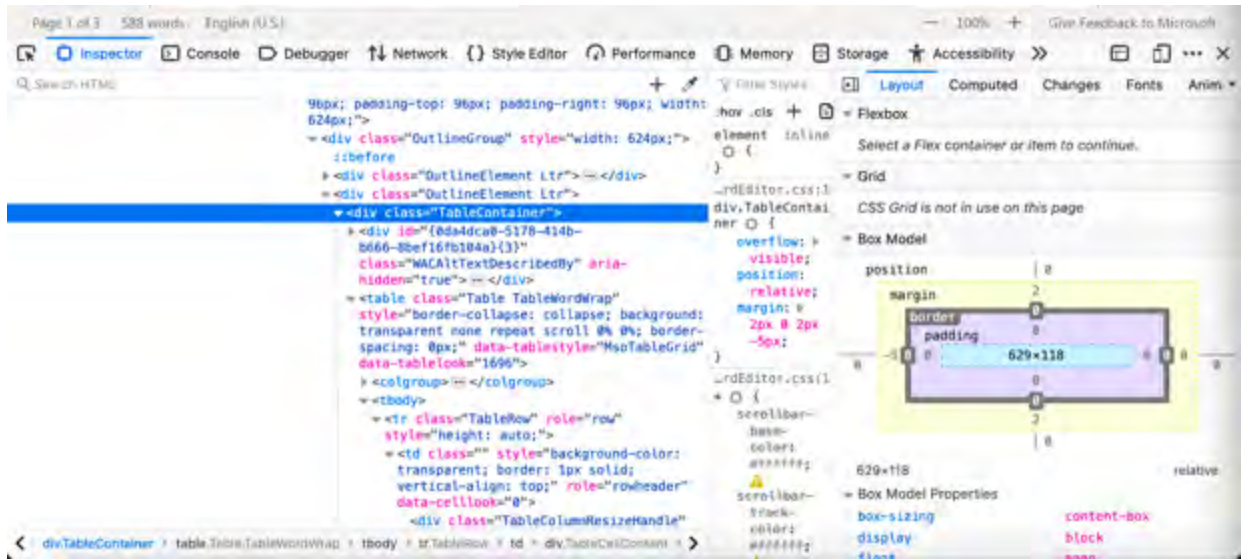
With Word for the web, you use your web browser to create, view, and edit the personal documents that you store on OneDrive. If your organization or college has a Microsoft 365 plan or SharePoint site, start using Word for the web by creating or storing documents in libraries on your site. Save changes

Word saves your changes automatically. Look on the status bar at the bottom left corner of Word for the web. It will either show **Saved** or **Saving**.



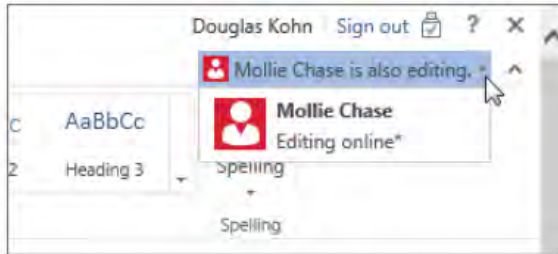
Source: <https://support.microsoft.com/en-us/office/basic-tasks-in-word-87b3243c-b0bf-4a29-82aa-09a681999fdc#ID0EABAA=Web>

222. The player code on the device operates with the virtual machine to execute the JavaScript instructions provided with the Accused Instrumentality in order to query the database for the output symbolic names and output values. The instructions also provide for the display of these one or more output values in the UI object in order to display the appropriate data to the user.



1 Work together on the same doc

2 To work together in Word for the web, you edit a document as you normally would. If others are also editing
3 it, Word for the web alerts you to their presence. You can see everyone who is currently working in the
4 document by clicking in the ribbon.



9 Clicking on an author's name jumps you to where they're working in the doc. And you'll see the changes
10 they make as they're happening. They can be working in Word for the web, Word 2010 or later, or Word for
11 Mac 2011.

12 **Source:** <https://support.microsoft.com/en-us/office/basic-tasks-in-word-87b3243c-b0bf-4a29-82aa-09a681999fdc#ID0EABAAA=Web>

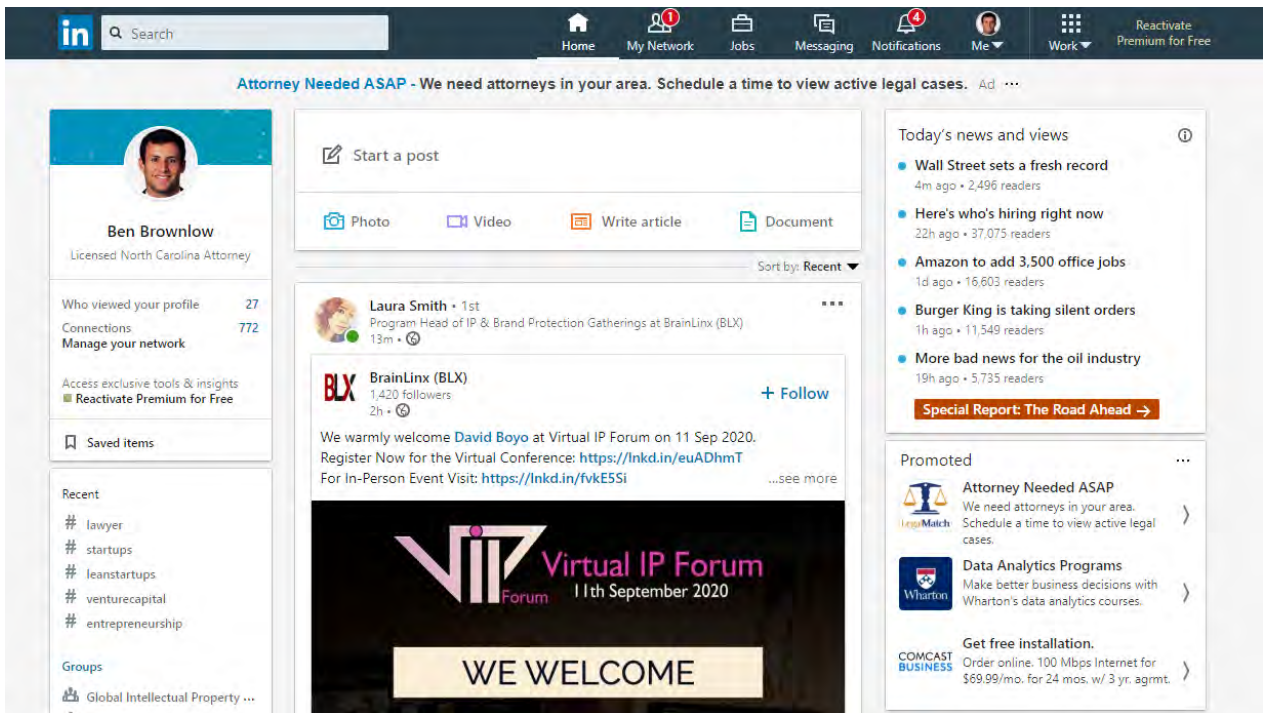
13 223. Microsoft was made aware of the '755 patent and its infringement thereof at least
14 as early as July 27, 2019 when Express Mobile provided notice of Microsoft's infringement of
15 the '755 patent to Dev Stahlkopf, General Counsel of Microsoft. Since at least the time
16 Microsoft received notice, Microsoft has induced others to infringe at least one claim of the '755
17 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful
18 blindness, actively aiding and abetting others to infringe, including but not limited to Microsoft's
19 clients, customers, and end users, whose use of the Accused Instrumentality constitutes direct
20 infringement of at least one claim of the '755 patent. In particular, Microsoft's actions that aid
21 and abet others such as customers and end users to infringe include advertising and distributing
22 the Accused Instrumentality and providing instruction materials, training, and services regarding
23 the Accused Instrumentality. *See e.g.*, microsoft.com, support.microsoft.com,
24 <https://support.microsoft.com/en-us/office>, <https://support.microsoft.com/en-us/microsoft-365>.
25 Microsoft has engaged in such actions with specific intent to cause infringement or with willful
26 blindness to the resulting infringement because Microsoft has had actual knowledge of the '755
27 patent and knowledge that its acts were inducing infringement of the '755 patent since at least
28 the date Microsoft received notice that such activities infringed the '755 patent.

1 224. Microsoft is liable as a contributory infringer of the '755 patent under 35 U.S.C. §
2 271(c) by offering to sell, selling and importing into the United States website or web page
3 authoring tools to be especially made or adapted for use in an infringement of the '755 patent. The
4 Accused Instrumentality is a material component for use in practicing the '755 patent, is
5 specifically made and is not a staple article of commerce suitable for substantial non-infringing
6 use.

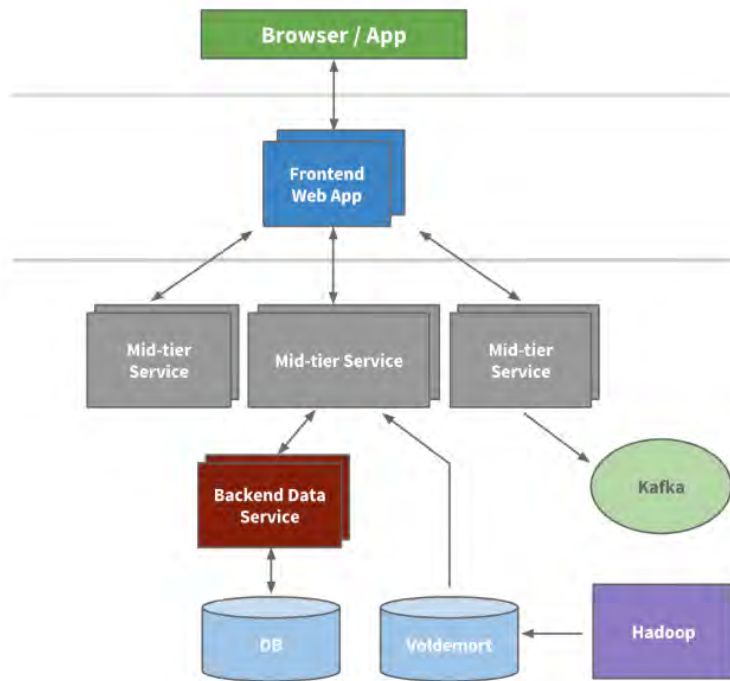
7 225. Upon information and belief, since the date of its receipt of notice, Microsoft's
8 infringement of the '755 patent has been willful and intentional under the standard announced in
9 *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S.Ct. 1923, 195 L.Ed 2d 278 (2016). Since at least July
10 27, 2019, Microsoft has willfully infringed the '755 patent by refusing to take a license and
11 continuing to make, use, test, sell, license, and/or offer for sale/license the Accused Instrumentality.
12 Microsoft has been aware that it infringes the '755 patent since at least July 27, 2019 and instead
13 of taking a license, Microsoft has opted to make the business decision to "efficiently infringe"
14 the '755 patent. In doing so, Microsoft willfully infringed the '755 Patent.

15 226. Microsoft's infringement has damaged and injured and continues to damage and
16 injure Express Mobile.

17 227. LinkedIn generates code to provide content on the display of a device for each of its
18 users (the "Accused Instrumentality").
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228. The Accused Instrumentality includes memory to store user selections and other information relating to a user's web site, web pages, and the web components or elements that are intended to be displayed.



An example multi-tier service oriented architecture within LinkedIn



Source: <https://engineering.linkedin.com/architecture/brief-history-scaling-linkedin>

1 229. The Accused Instrumentality includes the ability to select web components to display
 2 on a webpage, such as “Create a Poll,” which is a symbolic name for evoking one or more web
 3 component relating to a set of inputs and outputs of a web service obtainable over a network.

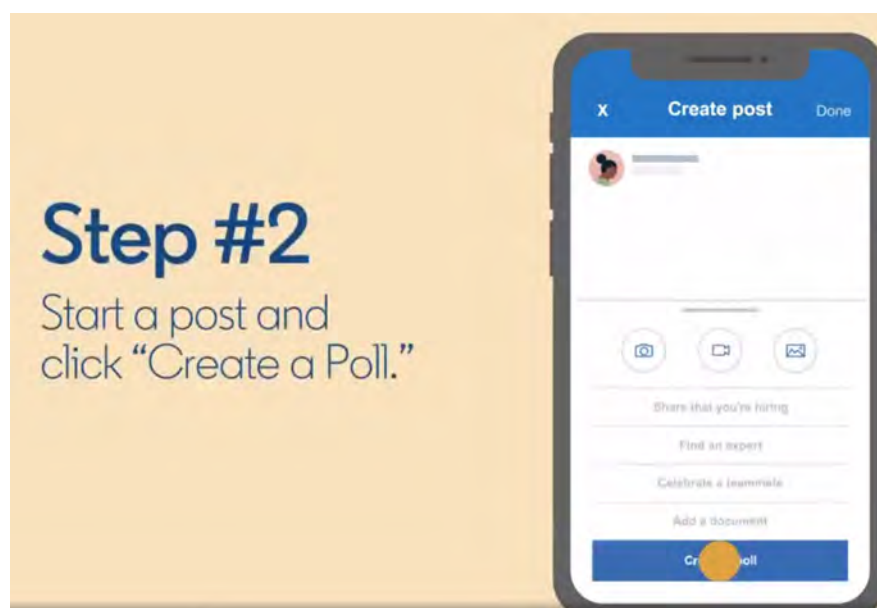
4 Create LinkedIn Polls

5 You can create a poll from [LinkedIn’s homepage](#). If you’re an admin of a [LinkedIn Page](#), or a [LinkedIn Group](#)
 6 you can create a poll directly from the page or group’s homepage.

7 To create a poll from your homepage:

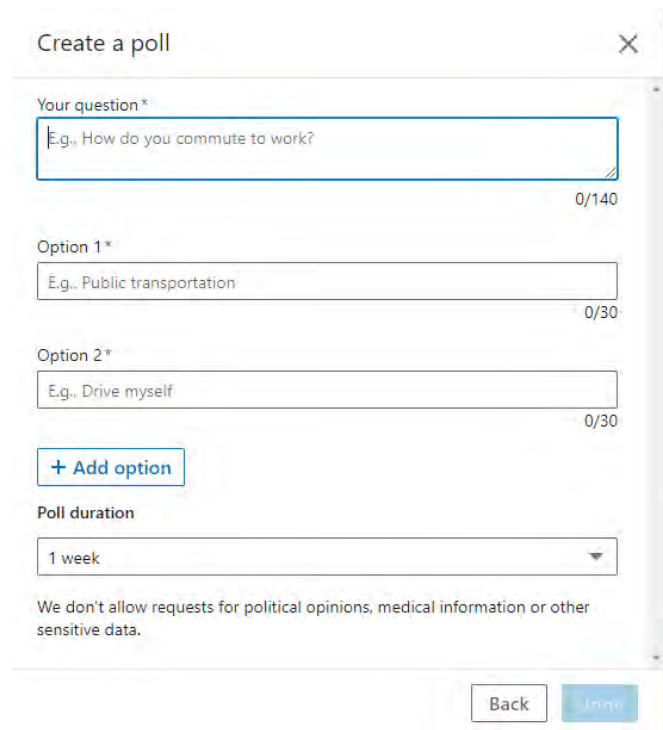
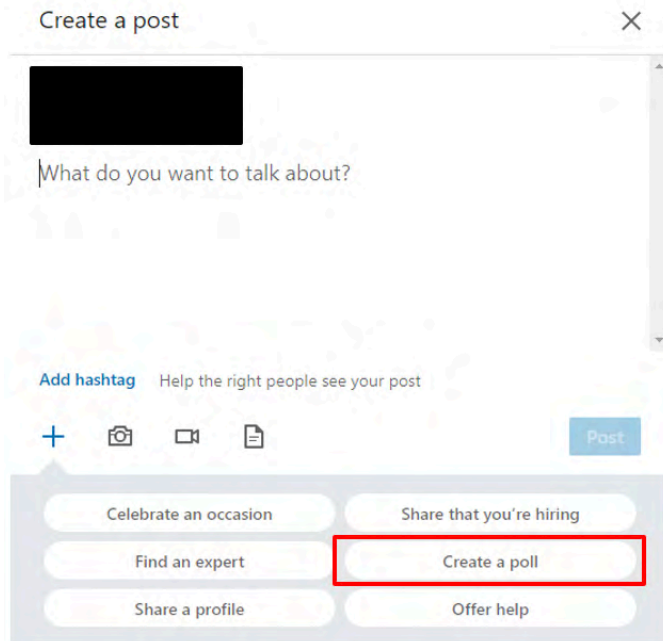
- 8 1. Click  **Start a post**.
- 9 2. Click **Create a poll**.
- 10 3. In the **Create a poll** window, type your question and fill in the options.
 - There is a minimum of two options and a maximum of four options on a poll.
 - Click **+Add option** to add another option.
- 11 4. Select the **Poll duration** from the dropdown.
 - The default duration is one week.
- 12 5. Click **Next**.
- 13 6. Click the  **Edit** icon to edit the post.
 - Select who you want to **share the poll with**.
- 14 7. You can add more to the post in the **What do you want to talk about?** field (optional).
- 15 8. Click **Post**.

16 **Source:** <https://www.linkedin.com/help/linkedin/answer/119595/create-linkedin-polls?lang=en>



27 **Source:** [https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-](https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls)
 28 [network-with-polls](https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls)

230. For example, the “Create a Poll” web component corresponds to a number of user interface (UI) objects, which the user may select between. One of the choices listed in the selection panel is the “Create a Poll” which has its own UI objects that support the data format type of “Create a Poll,” which takes the user inputs and generates new event outputs.



1 231. The Accused Instrumentality's web components include an address of the web
2 service.

The screenshot shows the KeyCDN IP Location Finder interface. The search input contains 'www.linkedin.com' and the 'Find' button is highlighted. The results are displayed in a table format:

LOCATION	
Country	United States (US)
Continent	North America (NA)
Coordinates	37.751 (lat) / -97.822 (long)
Time	2020-08-19 09:26:08 (America/Chicago)
NETWORK	
IP address	13.107.42.14
Hostname	13.107.42.14
Provider	MICROSOFT-CORP-MSN-AS-BLOCK
ASN	8068

3 Source: <https://tools.keycdn.com/geo?host=www.linkedin.com>

4 If you are using IPvFoo on a Chrome browser, you should see something like this. Note the number 6 on the right side of the URL
5 -- this means you are visiting www.linkedin.com via IPv6.

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Headers Preview Response Cookies Timing
Remote Address: 2020:197:c086:182::6ca9:281:443
Request URL: https://www.linkedin.com/home?trk=exp_responsive_tab_home
Request Method: GET
Status Code: 200 OK
* Request Headers - view source
Accept: text/html,application/xhtml+xml,application/javascript;q=0.9,image/webp,*/*;q=0.8
Accept-Encoding: gzip, deflate, br
Accept-Language: en-US,en;q=0.8
Connection: keep-alive

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If you want to look under the hood in advanced mode, right click on a LinkedIn page and click on Inspect Element. This will
expose the HTTP header where you can see that we are serving an IPv6 address to you. It should look something like this.



Source: <https://engineering.linkedin.com/ipv6/permanent-launch-ipv6>

232. The Accused Instrumentality includes an authoring tool that allow the user to define
a UI object to be displayed. For example, one of the web components “Create a Poll” allows the
user to create a post and add a poll, which consists of an input and an output of the LinkedIn Polls
web service.

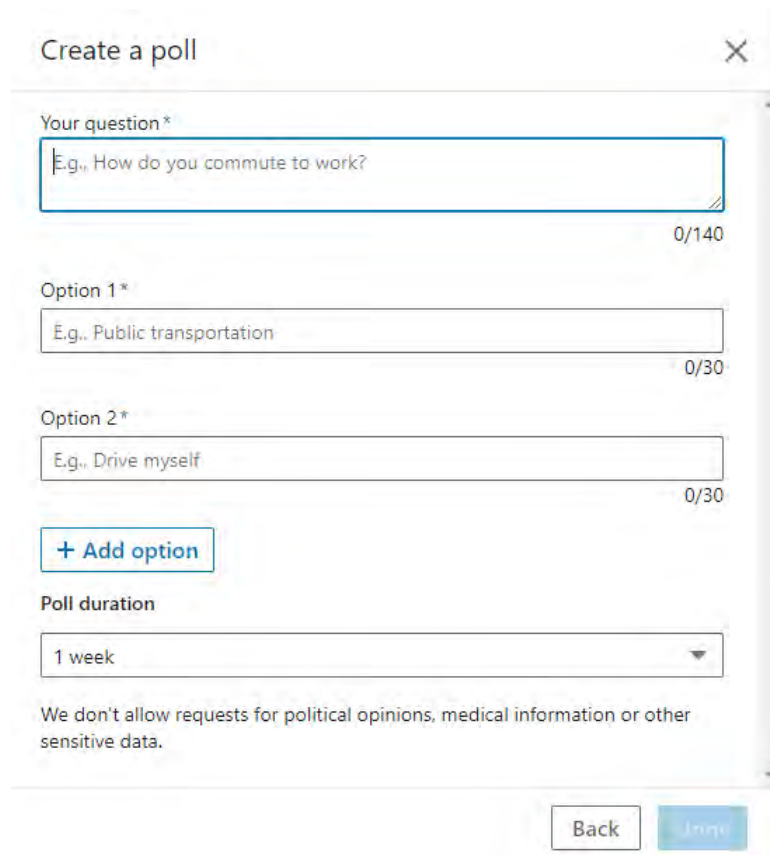
Create LinkedIn Polls

You can create a poll from [LinkedIn's homepage](#). If you're an admin of a [LinkedIn Page](#), or a [LinkedIn Group](#) you can create a poll directly from the page or group's homepage.

To create a poll from your homepage:

1. Click  **Start a post**.
2. Click **Create a poll**.
3. In the **Create a poll** window, type your question and fill in the options.
 - There is a minimum of two options and a maximum of four options on a poll.
 - Click **+Add option** to add another option.
4. Select the **Poll duration** from the dropdown.
 - The default duration is one week.
5. Click **Next**.
6. Click the  **Edit** icon to edit the post.
 - Select who you want to **share the poll with**.
7. You can add more to the post in the **What do you want to talk about?** field (optional).
8. Click **Post**.

Source: <https://www.linkedin.com/help/linkedin/answer/119595/create-linkedin-polls?lang=en>



Create a poll [X]

Your question *

E.g., How do you commute to work? 0/140

Option 1 *

E.g., Public transportation 0/30

Option 2 *

E.g., Drive myself 0/30

+ Add option

Poll duration

1 week [v]

We don't allow requests for political opinions, medical information or other sensitive data.

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Andrew Seaman • 2nd
LinkedIn news editor for job seekers and #GetHir...
1mo • 🌐

+ Follow ...

Let's try something fun: A non-scientific poll!

While all of these items are part of a successful job search, I want to know what you think is THE most important element.

Use the buttons below to select your answer.

#GetHired #Hiring #Jobs

What's the most important element of a successful job search?

The author can see how you vote. [Learn more](#)

Strong network	60%
Powerful resume	20%
Healthy social media presence	0%
Strategy	20%

15 votes • Poll closed

👍 2

Source: <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>



233. The authoring tool in the Accused Instrumentality is configured to produce an application consisting of a web page view from the LinkedIn database. The application is provided, for example, in the form of JavaScript files and associated data for the web page view(s) that are stored in the LinkedIn database. When a browser is used to access the Accused Instrumentality, it uses a player which interacts with the application and data stored on the LinkedIn server. The player accesses and renders the data to generate the web page viewed by the user. The player operates with the virtual machine (for example, Microsoft Internet Explorer uses the Trident or Blink virtual machine, depending on the software version) and the information stored in the database in order to generate and display at least a portion of one or more web pages. The player includes code that is device-dependent in order to allow the environment to work across a variety of device such as personal computers (including laptops and desktops), tablets, and mobile phones. LinkedIn stores information representative of the defined UI object and related settings in a database and retrieves the information for purposes of displaying the UI object on the live web site.

1 For example, settings related to the UI object would include the selected options for the poll as
 2 well as the duration selected for the poll.

3 Create LinkedIn Polls

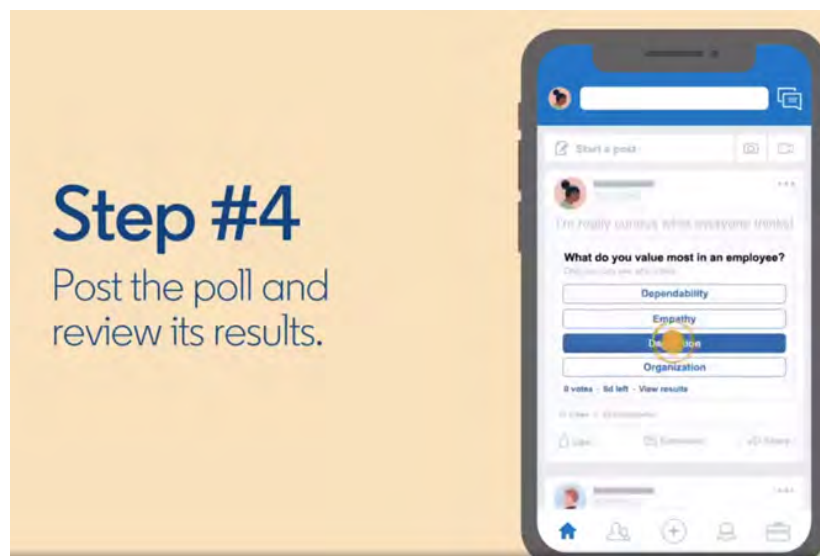
4 You can create a poll from [LinkedIn's homepage](#). If you're an admin of a [LinkedIn Page](#), or a [LinkedIn Group](#)
 5 you can create a poll directly from the page or group's homepage.

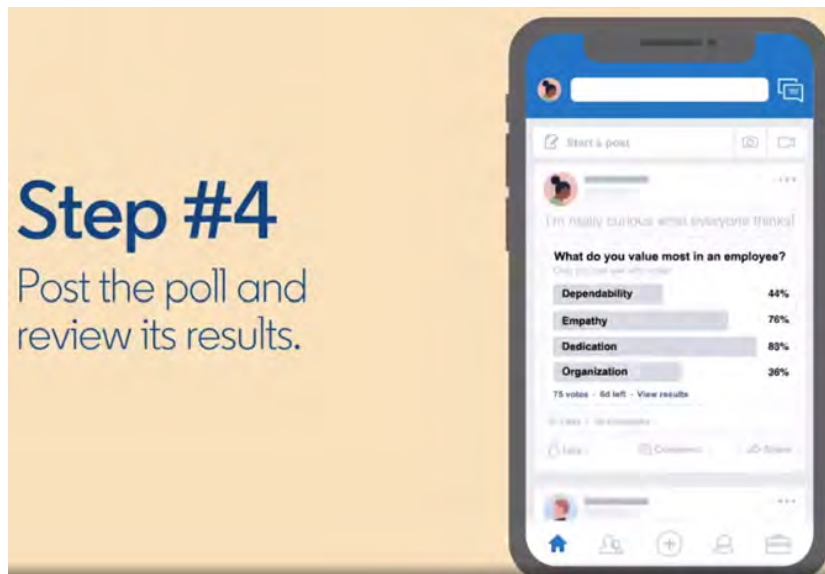
6 To create a poll from your homepage:

- 7 1. Click  **Start a post**.
- 8 2. Click **Create a poll**.
- 9 3. In the **Create a poll** window, type your question and fill in the options.
 - There is a minimum of two options and a maximum of four options on a poll.
 - Click **+Add option** to add another option.
- 10 4. Select the **Poll duration** from the dropdown.
 - The default duration is one week.
- 11 5. Click **Next**.
- 12 6. Click the  **Edit** icon to edit the post.
 - Select who you want to **share the poll with**.
- 13 7. You can add more to the post in the **What do you want to talk about?** field (optional).
- 14 8. Click **Post**.

15 **Source:** <https://www.linkedin.com/help/linkedin/answer/119595/create-linkedin-polls?lang=en>

16 234. In the example below, the Accused Instrumentality stores the “What do you value
 17 most in an employee?” selections made by the user and retrieves those selections for displaying to
 18 the user's network.



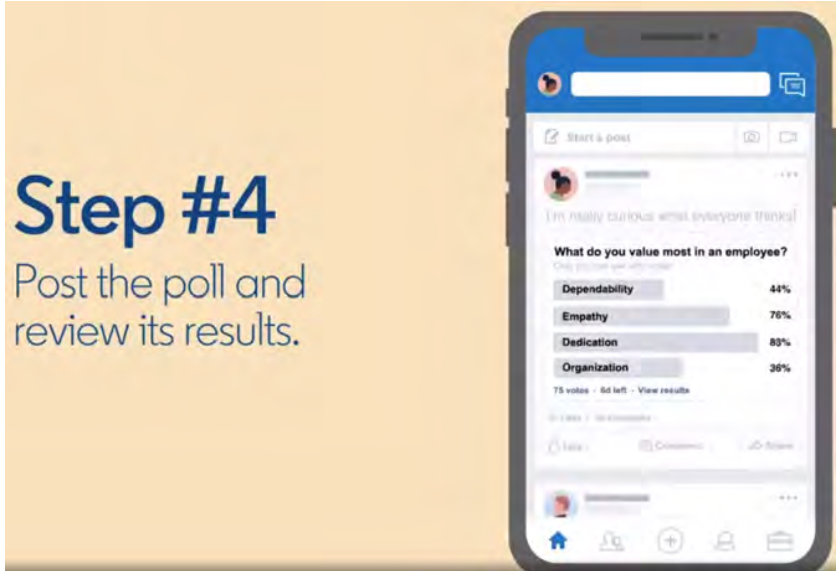
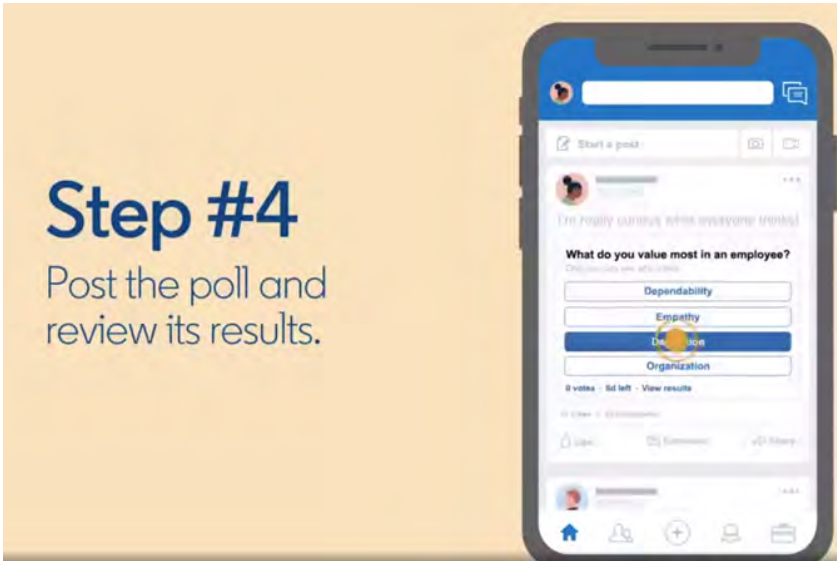


10 **Source:** <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>

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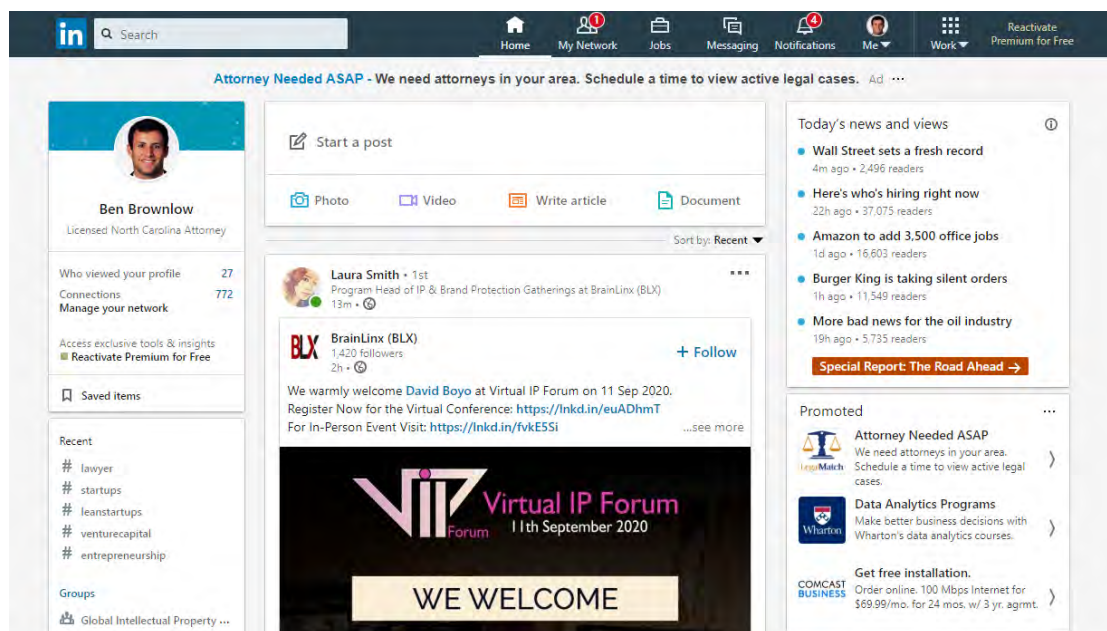
235. The Accused Instrumentality includes a player or code that utilizes information stored in its database to generate for display one or more web pages as shown below. The application is provided, for example, in the form of JavaScript files and associated data for the web page view(s) that are stored in the LinkedIn database. When a browser is used to access the Accused Instrumentality, it uses a player which interacts with the application and data stored on the LinkedIn server. The player accesses and renders the data to generate the web page viewed by the user. The player operates with the virtual machine (for example, Microsoft Internet Explorer uses the Trident or Blink virtual machine, depending on the software version) and the information stored in the database in order to generate and display at least a portion of one or more web pages. The player includes code that is device-dependent in order to allow the environment to work across a variety of devices such as personal computers (including laptops and desktops), tablets, and mobile phones.

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Source: <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>

236. As described above and shown below, when a browser accesses the Accused Instrumentality or views a LinkedIn Story poll generated by the Accused Instrumentality, the application is provided to the device in the form of JavaScript files and other assets. The player code operates with the virtual machine to interpret this JavaScript and execute it locally.



Navigate the LinkedIn Mobile App

The **LinkedIn mobile app** is available from your phone's app store and allows you to access your LinkedIn account from your mobile device.

To access **your profile**, account settings, and information about **who's viewed your profile**, tap on your profile picture in the top left corner.

From the top of your homepage, you can also:

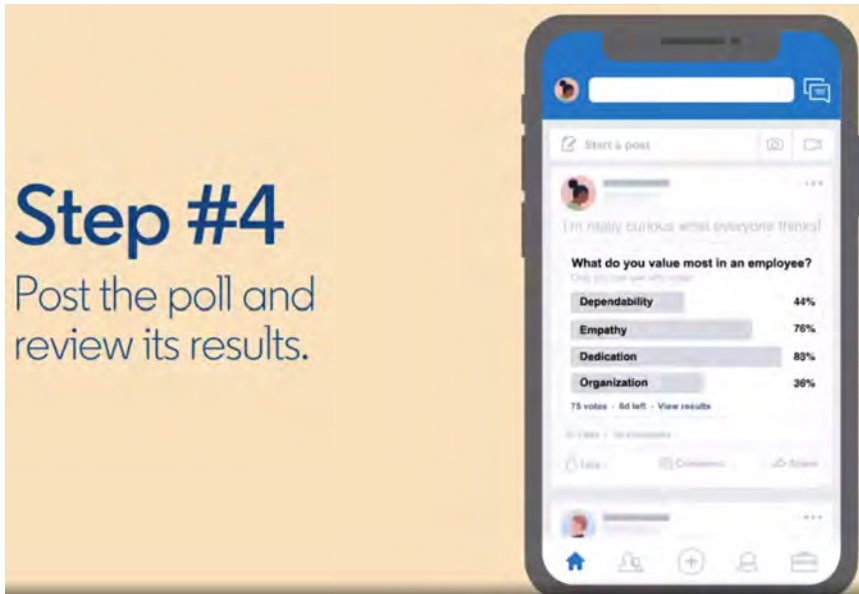
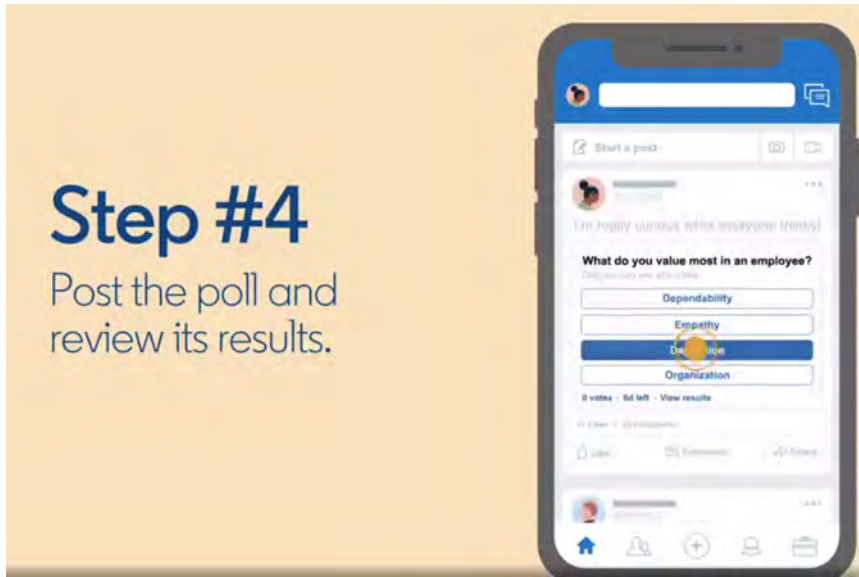
- Use the search bar to **search** LinkedIn for relevant people, companies, jobs, or hashtags.
- Use the **Messaging** tab to have **professional conversations with your connections**.

Additional tabs can be found at the bottom of your homepage. You can navigate between tabs on the LinkedIn mobile app by tapping the icons in the navigation bar:

Source: <https://www.linkedin.cn/help/linkedin/mobile-apps/15001/15007/62636>

237. The Accused Instrumentality web pages accept input from the user of a device related to the defined UI object, input which is then provided to a web service. The web pages receive the output from the web service and provide instructions for the display of the device to present the output value in the defined UI object. The player code on the device operates with the virtual machine to execute the JavaScript instructions provided with LinkedIn in order to receive the output symbolic name and output value. The instructions also provide for the display of this output value in the UI object in order to display the appropriate data to the user. This output value is presented in the UI object for display on the device to the user.

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Source: <https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls>

238. LinkedIn was made aware of the '755 patent and its infringement thereof at least as early as October 26, 2020 when Express Mobile provided notice of LinkedIn's infringement of the '755 patent to Blake Lawit, SVP and General Counsel of LinkedIn Corporation. Since at least the time LinkedIn received notice, LinkedIn has induced others to infringe at least one claim of the '755 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to LinkedIn's clients, customers, and end users, whose use of the Accused

1 Instrumentality constitutes direct infringement of at least one claim of the '755 patent. In
2 particular, LinkedIn's actions that aid and abet others such as customers and end users to infringe
3 include advertising and distributing the Accused Instrumentality and providing instruction
4 materials, training, and services regarding the Accused Instrumentality. *See e.g.*,
5 www.linkedin.com; <https://www.linkedin.com/help/linkedin?lang=en>;
6 [https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-](https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls)
7 [with-polls](https://blog.linkedin.com/2020/may/12/tapping-into-the-power-of-your-professional-network-with-polls); <https://engineering.linkedin.com/ipv6/permanent-launch-ipv6>;
8 <https://www.linkedin.com/help/linkedin/answer/119595/create-linkedin-polls?lang=en>;
9 <https://www.linkedin.cn/help/linkedin/mobile-apps/15001/15007/62636>; and related domains
10 and subdomains. LinkedIn has engaged in such actions with specific intent to cause infringement
11 or with willful blindness to the resulting infringement because LinkedIn has had actual
12 knowledge of the '755 patent and knowledge that its acts were inducing infringement of the '755
13 patent since at least the date LinkedIn received notice that such activities infringed the '755
14 patent.

15 239. LinkedIn is liable as a contributory infringer of the '755 patent under 35 U.S.C. §
16 271(c) by offering to sell, selling and importing into the United States website or web page
17 authoring tools to be especially made or adapted for use in an infringement of the '755 patent.
18 The Accused Instrumentality is a material component for use in practicing the '755 patent, is
19 specifically made and is not a staple article of commerce suitable for substantial non-infringing
20 use.

21 240. LinkedIn's infringement has damaged and injured and continues to damage and
22 injure Express Mobile.

PRAYER FOR RELIEF

1
2 WHEREFORE, Plaintiff requests that the Court enter judgment for Plaintiff and against
3 Defendants as follows:

4 241. That U.S. Patent No. 6,546,397 be judged valid, enforceable, and infringed by
5 Defendants;

6 242. That U.S. Patent No. 7,594,168 be judged valid, enforceable, and infringed by
7 Defendants;

8 243. That U.S. Patent No. 9,928,044 be judged valid, enforceable, and infringed by
9 Defendants;

10 244. That U.S. Patent No. 9,471,287 be judged valid, enforceable, and infringed by
11 Defendants;

12 245. That U.S. Patent No. 9,063,755 be judged valid, enforceable, and infringed by
13 Defendants;

14 246. That Plaintiff be awarded judgment against Defendants for damages together with
15 interests and costs fixed by the Court including an accounting of all infringements and/or damages
16 not presented at trial;

17 247. That the Court declare this an exceptional case and award Plaintiff its attorneys'
18 fees, as provided by 35 U.S.C. § 285 and that Plaintiff be awarded enhanced damages up to treble
19 damages for willful infringement as provided by 35 U.S.C. § 284; and

20 248. That Plaintiff be awarded such other and further relief as this Court may deem just
21 and proper.

JURY DEMAND

22 Plaintiff respectfully requests a jury trial on all issues so triable.

23
24 Dated: October 27, 2020

Respectfully submitted,

25 By: /s/ Robert Kramer
Robert Kramer

26 FEINBERG DAY KRAMER ALBERTI
27 LIM TONKOVICH & BELLOLI LLP

28 *Attorneys for Express Mobile, Inc.*