EXHIBIT 5

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September 24, 2018

<u>**VIA E-mail and U.S. MAIL**</u>
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> **Re:**   *In Re: PersonalWeb Technologies, Inc., et al., Patent Litigation (Case No: 5:18-md-02834-BLF); Personal Web Technologies - Heroku, Inc. (5-18-cv-00162-BLF)*

Dear Mr. Lee and Mr. Berta:

At the Preliminary CMC on September 20, 2018, Mr. Berta told the Court that Heroku is considering filing a "Rule 11 Motion to Dismiss" based on the allegation, "[T]here's literally not one fact that's pleaded in [PersonalWeb's complaint against Heroku]."

As an initial matter, PersonalWeb's complaint against Heroku meets and exceeds the pleading requirements of the Federal Rules as well as the requirements set forth by *Iqbal/Twombly*. Furthermore, PersonalWeb's complaint against Heroku does recite specific facts regarding the manner in which its infringing website operates. The complaint contains facts alleging each of the elements of at least one claim in each of the four asserted patents in suit. While not required to defeat a Rule 12 motion (or satisfy Rule 11 requirements), the operative complaint does not include specific examples of index files ("webpage base files" in the proposed amended complaint), asset files, and fingerprints in URI's involved in the described infringing activities.

Nonetheless, in an effort to resolve this issue, and avoid unnecessary motion practice, this letter provides Heroku with specific examples of webpage base files, asset files, and fingerprints in URI's involved in Heroku's infringing activity, some of which will be included in the Second Amended Complaint that PersonalWeb will be filing against Heroku. We ask that Heroku correct us if it believes we have any of these facts incorrect. As we have referenced in open court, there have been some Website Operators who were sued and PersonalWeb subsequently dismissed based on information they provided us. We are always willing to hear what Website Operators have to say, particularly if that defendant disagrees with facts alleged.

Nicholas H. Lee
Michael A. Berta
September 24, 2018
Page 2

According to the archives at archive.org, by way of example: On December 25, 2013, Heroku served a webpage base file substantially similar to the attached file[1]: Heroku_2013_base_file.html. This file was served by host server "heroku.com". When this file was served to archive.org on December 25, 2013, according to the headers archived by archive.org, it was served with an "etag" header with the value '"22f26b42b31065d3a9c4882c440129b6"'. Our understanding is that this ETag was a content-based identifier of the webpage base file served by heroku.com.

This December 25, 2013 heroku.com webpage base file expressly included references to the asset files listed below. According to the archives at archive.org: Each of these asset files was served to archive.org on or about December 25, 2013. Copies of these asset files as they are archived by archive.org have been downloaded, some of which were modified by our litigation software programming referenced in footnote one and are attached. Each of these asset files was served by the host server at "d4yt8xl9b7in.cloudfront.net", with an "etag" header with the ETag value listed below for the corresponding asset file and with a "server type" header with the value "AmazonS3". For each listed asset file, the value of the "etag" header served with that asset file is the MD5 hash of the contents of that asset file.
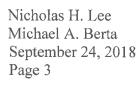
According to the archives at archive.org: This December 25, 2013 heroku.com webpage base file included references to the asset files "placeholders-de90ef0087cad3ae8e589a40312e4f8d.js" and "retina-6aaf485d185c125a62bd793d2c6ad419.js". Each of these asset files was served to archive.org on or about December 25, 2013. Copies of these asset files as they are archived by archive.org have been downloaded, modified by our litigation software programming referenced in footnote one, and are attached. Both of these asset files were served by the host server at "d4yt8xl9b7in.cloudfront.net". Both of these asset files were served with a "server type" header with the value "AmazonS3". The MD5 hash value of the asset file "placeholdersde90ef0087cad3ae8e589a40312e4f8d.js" prepended with the seed string "2.2.2production-1.0" is "de90ef0087cad3ae8e589a40312e4f8d". The MD5 hash value of the asset file "retina-6aaf485d185c125a62bd793d2c6ad419.js" prepended with the seed string "2.2.2production-1.0" is "6aaf485d185c125a62bd793d2c6ad419".

According to the archives at archive.org: On December 24, 2014, Heroku served a webpage base file substantially similar to the attached file (see footnote one): Heroku_2014_base_file.html. This file was served by host server "heroku.com". When this file was served to archive.org on December 24, 2014, according to the archives at archive.org, it was served with an "etag" header with the value 'W/"6c23585e273cd3c7da0a21ed28f942f2"'. This file was also served with a "server type" header of "Cowboy". Our understanding is that this ETag served was a content-based identifier of the webpage base file served by heroku.com.

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[1] By "substantially similar" we are referring to the fact that Archive.org – while a recording/preservation service – modifies the webpage base file in order to re-create the experience of visiting the webpage at the archived time that most often appear insignificant to someone with a general interest in seeing what a website looked like at some point in the past. Our specially written litigation software programming has removed as many of these modifications as can be determined from the modified file.

Nicholas H. Lee
Michael A. Berta
September 24, 2018
Page 3

This December 24, 2014 heroku.com webpage base file expressly included references to the asset files listed below. According to the archives at archive.org: Each of these asset files was served to archive.org on or about December 24, 2014. Copies of these file files as they are archived by archive.org have been downloaded, some modified by our litigation software programming referenced in footnote one and are attached. The asset files "screenshot-macys.png", "screenshot-scoot.png", and "screenshot-lutron.png" listed below were served by the host server at heroku.com, with a "server type" header having the value "Cowboy". Each of the remaining asset files listed below was served by the host server at "d4yt8xl9b7in.cloudfront.net" and a "server type" header with the value "AmazonS3". Each of the listed asset files, whether served from "heroku.com" or "d4yt8xl9b7in.cloudfront.net", was served with an "etag" header having the ETag value listed below for the corresponding asset file. For each listed asset files, the value of the "etag" header served with that asset file is the MD5 hash of the contents of that asset file.

These aforementioned examples demonstrate PersonalWeb's evidentiary support for the factual contentions alleged against Heroku in PersonalWeb's operative complaint, which will be further illuminated in the Second Amended Complaint. These examples support infringement of each of the four claims for relief asserted against Heroku.

Again, we welcome comments, questions or disagreements.

Sincerely,

Wesley Monroe

Nicholas H. Lee
Michael A. Berta
September 24, 2018
Page 4

Selected 2013 Heroku Asset Files

Name	ETag
application-2b3a070e5e7c56d08f01682bc8cafbd4.js	"c278d96f2b7c5066bbb7283bf863a8d2"
build-811ee90c559256bc1e03b40b14b319b2.png	"8eba2104e8114859b336c737bf6f3dcf"
rollbar-ac73a6a6643acbc589717d8eb64c3b46.js	"197a8ef8f3927007c4827fa4f8e8063e"
application-2e62f3cd5ee8f20f6a3149c01917d702.css	"a0b5fa9f3b709eac8521bef8f5775866"
aaron-ce770f217fc31a1ffa1ea97c2e6d57f3.png	"7025c67921a7c4c72d89c4e2b30ea64f"
placeholders-de90ef0087cad3ae8e589a40312e4f8d.js	"3d314c301dc458b9cee8b1cc9317a1fa"
retina-6aaf485d185c125a62bd793d2c6ad419.js	"a9a89e3d141ee3044993257fc82cb84b"
ryan-48a4f951304b37e5ec52bb7807973f99.png	"cee49fa3d02bea72618d6d974ed73b4c"
scale-e0e96966fd3945c259789e2c98898630.png	"ea3187f364287e3f84565463465dfd4a"
rahul-61f19b8f79cb2ef65044a69f0710033a.png	"3a75466b48200d99b13a6e55d47b59a5"
code-for-america-54cb817d00505598ff3cbfac73c3e9ef.png	"41cb3aa3abe841314b5591e4be26b9eb"
github-ff96a3cca5ba3c650dc46a275c5917a8.png	"dff84859e032604e8f9d5cd55eddbd9e"
lyft-04074927ccb6506b0b5c01834cb324b7.png	"14ba28e645e9e01098bca9b9fd46625f"
logo-537c330ed59a42305b70bfa628bac079.png	"67be5d3f41e42525232769deffea69d9"
navbar-toggle-b92a3af0ce285c32e25bdbc1761d5d88.png	"ead87c052b468db46a3850b2986ce6bd"
ted-f2a13dea85e10efd65f5f09b6e19f972.png	"5208787be6ba664c7c4663245d53c8c7"
mailchimp-6acdbe9faa9e62fef8bfb914616c04ff.png	"66a7c2c128cd54cce11c079f98a82410"
facebook-49e7745ea31cbda9599eaf1a2d52d2ba.png	"eb8b9767cbd5cad614565819d9174f27"
footer-brand-logo-72660c80a8d08ae06875f5097c5d63f7.png	"cdb0df776363d697df3c28615bd68477"
bentonsans-book-520df8a5f03b6a45cbf79f2c7e40ebc2.woff	"cb4d66cf19b9c2a847a296072bb084b7"
bentonsans-regular-f94699eab9db9172ba064c99fec1aef0.woff	"a3103229fa33543d322525a5669d3b27"
bentonsans-medium-09c1eb88ad32a9ad8aa37b19d83587a9.woff	"682dfc4bcd67cb851fa3dad68f564761"

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