

**Exhibit 5.1**

Opinion of Greenberg Traurig, LLP

August 15, 2006

Dyadic International, Inc.  
140 Intracoastal Pointe Drive  
Suite 404  
Jupiter, Florida 33477

Re: Registration Statement on Form S-8

Gentlemen:

We have acted as counsel to Dyadic International, Inc., a Delaware corporation (the “Company”), in connection with the preparation of the Registration Statement on Form S-8 to be filed by the Company with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the “Securities Act”), on or about the date hereof (the “Registration Statement”) relating to the registration of an aggregate of 2,700,000 shares of the Company’s Common Stock, \$0.001 par value per share (the “Shares”), reserved for issuance from time to time under the Dyadic International, Inc. 2006 Stock Option Plan (the “Plan”).

In so acting, we have examined originals, or copies certified or otherwise identified to our satisfaction, of (a) the Articles of Incorporation, as amended, and Bylaws of the Company as currently in effect, (b) the Registration Statement, (c) the Plan, (d) certain resolutions adopted by the Board of Directors of the Company, and (e) such other documents, records, certificates and other instruments of the Company as in our judgment are necessary or appropriate for purposes of this opinion.

Based on the foregoing, it is our opinion that the Shares will be, when issued and sold in the manner referred to in the Plan, legally issued, fully paid and non-assessable.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement. In giving such consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act, or the rules or regulations of the Securities and Exchange Commission promulgated thereunder. As of the date hereof, one of our attorneys beneficially owns in the aggregate 105,056 shares of the Company’s Common Stock.

Very truly yours,

/s/ Greenberg Traurig, LLP  
Greenberg Traurig, LLP