Medidata Solutions, Inc. Form SC 13G February 16, 2010

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No.)*

Medidata Solutions, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

58471A105

(CUSIP Number)

December 31, 2009

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

x Rule 13d-1(b)

o Rule 13d-1(c)

o Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 58471A105

1.	Names of Reporting Persons Fred Alger Management, Inc.	13-2510833			
	Alger Associates, Incorporated	13-3017981			
2.	Check the Appropriate Box if a M (a) o (b) x	ember of a Group (See l	Instructions)		
3.	SEC Use Only				
4.	Citizenship or Place of Organization New York, New York				
Number of	5.		Sole Voting Power 1,911,697		
Shares Beneficially Owned by	6.	Shared Voting Power -0-			
Each Reporting Person With	7.	Sole Dispositive Power 1,911,697			
	8.		Shared Dispositive Power -0-		
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 1,911,697				
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) o				
11.	Percent of Class Represented by Amount in Row (9) 8.40%				
12.	Type of Reporting Person (See Ins Fred Alger Management, Inc.	structions) IA			
	Alger Associates, Incorporated	НС			

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CUSIP No. 58471A105

Item 1.						
	(a)	Name of Issu	uer			
			Medidata Solutions, Inc. Address of Issuer s Principal Executive Offices			
	(b)	Address of Is				
		79 Fifth Avenue, 8th Floor				
		New York, NY 10003				
Item 2.						
	(a)	Name of Per	son Filing			
		1.	Fred Alger Management, Inc.*			
		2.	Alger Associates, Incorporated			
	(b)	Address of P	Address of Principal Business Office or, if none, Residence			
		111 Fifth Av	111 Fifth Avenue, New York, NY 10003			
	(c)	Citizenship				
		New York				
	(d)	Title of Class of Securities Common Stock				
	(e)	CUSIP Num	ber			
		36238G102				
Item 3.	If this state	ement is filed pursua	nt to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:			
	(a)	0	Broker or dealer registered under section 15 of the Act (15 U.S.C. 780);			
	(b)	0	Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);			
	(c)	0	Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);			
	(d)	0	Investment company registered under section 8 of the Investment Company			
			Act of 1940 (15 U.S.C. 80a-8);			
	(e)	Х	An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);			
	(f)	0	An employee benefit plan or endowment fund in accordance with \$240.13d-1(b)(1)(ii)(F);			
	(g)	0	A parent holding company or control person in accordance with \$240.13d-1(b)(1)(ii)(G);			
	(h)	0	A savings association as defined in Section 3(b) of the Federal Deposit			
			Insurance Act (12 U.S.C. 1813);			
	(i)	0	A church plan that is excluded from the definition of an investment company			
	.,		under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);			
	(j)	0	A non-U.S. institution in accordance with § 240.13d 1(b)(1)(ii)(J);			
	U	0	Group, in accordance with § 240.13d 1(b)(1)(ii)(K). If filing as a non-U.S.			
	(k)	0	institution in accordance with § 240.13d $1(b)(1)(ii)(J)$, please specify the type			
	(K)	0	of institution:			
			or institution			

* By virtue of the Alger family s ownership of a controlling interest in Alger Associates, which indirectly owns Fred Alger Management, Inc., ownership of the shares may be imputed to the Alger Family.

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Item 4. Ownership	ding the aggregate number and	percentage of the class of securities of the issuer identified in Item 1.		
(a)	Amount beneficially owne			
	1,911,697			
(b)	Percent of class:			
	8.40%			
(c)	Number of shares as to wh	Number of shares as to which the person has:		
	(i)	Sole power to vote or to direct the vote		
		1,911,697		
	(ii)	Shared power to vote or to direct the vote		
		-0-		
	(iii)	Sole power to dispose or to direct the disposition of		
		1,911,697		
	(iv)	Shared power to dispose or to direct the disposition of		
		-0-		
_	e Percent or Less of a Class	f the reporting person has ceased to be the beneficial owner of more th		

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following o.

Item 6. n/a	Ownership of More than Five Percent on Behalf of Another Person
Item 7. n/a	Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person
Item 8. n/a	Identification and Classification of Members of the Group
Item 9. n/a	Notice of Dissolution of Group

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Item 10.

Certification

(a) The following certification shall be included if the statement is filed pursuant to s240.13d-1(b):

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

FRED ALGER MANAGEMENT, INC.

By: /s/ Hal Liebes Executive Vice President February 16, 2010

ALGER ASSOCIATES, INC.

By: Director February 16, 2010 /s/ Hal Liebes

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative other than an executive officer or general partner of the filing person, evidence of the representative s authority to sign on behalf of such person shall be filed with the statement, provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath his signature.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See s240.13d-7 for other parties for whom copies are to be sent.

ATTENTION. INTENTIONAL MISSTATEMENTS OR OMISSIONS OF FACT CONSTITUTE FEDERAL CRIMINAL VIOLATIONS (SEE 18 U.S.C. 1001).