

# DAILY REPORT

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## Cyber-mediators in ADR future?

*If IBM's Watson can be developed into a virtual physician, it should be able to be a mediator, too*

By Douglas J. Witten, Special to the Daily Report

I was struck by a pair of popular news stories that unfolded in the second half of February that, together, provide perhaps an unsettling glimpse into the future. First, as many of you likely heard, IBM computer "Watson" made headlines by defeating its human whiz opponents on "Jeopardy!" and bagging a \$1 million prize.[1] Just over a week later, the world's first robot marathon began in Osaka, Japan, where five battery-charged, bipedal robotic runners embarked—unassisted, by the way—on a 26.2-mile course to test their durability and maneuverability.[2]

Watson's story became even more intriguing when, shortly after their game-show victory, IBM, along with Nuance Healthcare, announced that a joint venture between them "will combine IBM's question-answering, language-processing, and machine-learning capabilities with [Nuance's] ... speech-recognition and clinical-understanding solutions to assist physicians in patient diagnosis and treatment." [3] Additionally, Columbia University and the University of Maryland will collaborate with IBM-Nuance with a goal of allowing doctors to query a "cybernetic assistant" and basically, together, create an interactive information exchange between physician and computer that could very well revolutionize the delivery of personalized medical care.[4]

Hearing about computers projected to have speech-recognition capacity and the ability to review symptoms, process tremendous volumes of data and propose medical diagnoses, alongside robots now capable even of running marathons, health care consumers may find it less far-fetched, even if disturbing, to envision hospitals and doctors' offices staffed by machines instead of physicians.

Although IBM project proponents and critics alike seem quick to agree that physicians will ultimately remain in control of health care decision-making, perhaps soon using Watson or other "artificial intelligence" as resources without ever yielding final determination or authority, one cannot help but reserve some fear that computers could someday be designed to replace physicians and their professional judgment. Computers seem to have certain limitations that engender skepticism as to their eventual role in fully assuming tasks otherwise performed by humans,[5] but the considerable hype surrounding the potential of recent technological advances strongly suggests that such skepticism may eventually be overcome.

As a mediator, upon further consideration of Watson's potential implications for the future of health care delivery, my mind began racing in a slightly different direction: If this type of advancement is projected to have such a profound effect in medicine, why not also in alternative dispute resolution? It sounded outrageous at first, but the more I considered the anticipated functions of Watson-type technologies in medicine—asking questions, processing information, proposing possible solutions, for instance—the parallels became more obvious. If Watson can one day be developed into a virtual physician's assistant (or physician), why not also into a mediator?

A recent article by Professor David Allen Larson, senior fellow and former director at the Dispute Resolution Institute and Hamline University School of Law, asks whether science has now progressed to the point that artificial intelligence devices can replace human mediators, arbitrators, dispute-resolvers and problem-solvers.[6] Focusing on robots and avatars—electronic images that represent and are manipulated by a computer user[7]—Professor Larson explores the roles that intelligent devices might play in dispute resolution and problem-solving processes, further pondering whether human mediators and arbitrators can be replaced by robots and avatars that physically resemble humans but also act, think and reason like, or even better than, humans.

Rather than looking too far into the future, into a world beyond that of which we can reasonably conceive, Professor Larson's article discusses artificial intelligence devices that exist, or very soon will exist, and suggests how these devices can be integrated into ADR processes. Interestingly, Professor Larson suggests that accepting the foundational principle that parties should have significant control over the nature of their ADR processes also requires recognizing that these parties, who are increasingly living with artificial intelligence devices in their daily lives, will eventually become comfortable enough with these devices that they will expect and demand that such devices be included in dispute-resolution processes.

Citing numerous examples from a range of disciplines and professions, including the psychological treatment of autistic children, caring for the elderly, along with applications used by the military and by consumers in their homes, the article argues that robots and avatars can perform, at least for some purposes, as effectively as flesh-and-blood mediators through their possession of the four critical human capabilities of engagement, emotion, collaboration and social relationship.[8] Noting the successes that a particular "virtual nurse" avatar program had in empowering patients and actively involving them in resolving their health care problems, Professor Larson even goes so far to suggest that "it frankly is absurd to claim that avatars have no role to play in dispute resolution or problem solving." [9]

Rest assured, however, that in the end Professor Larson does not propose that we replace all mediators with artificial intelligence devices just yet. Nonetheless, Larson suggests that such devices may be able to perform the critical information-gathering function on which mediations and ADR processes rely. By doing so, Larson further suggests that mediators can selectively "subcontract" certain responsibilities to artificial intelligence devices that can make the dispute-resolution process more efficient and cost-effective.[10]

Professor Larson also touts the advantages of using avatars and humanoid robots to welcome and introduce parties to a mediation, elicit and collect certain types of information disclosed during a mediation and formulate hypotheses in collaborating during ADR processes.[11] Given the increasing rate at which artificial intelligence devices and programs are being integrated into our daily lives, and with a new generation of near-adults spending significant time interacting with avatars in cyberspace and relying on technology-assisted communication for their most intimate conversations, Larson argues that it would be unrealistic to believe that the ADR world will avoid this evolution.[12]

Ultimately, despite the expanded application of artificial intelligence device technology suggested by the feats of IBM's Watson and by others in various fields, neither physicians nor human mediators seem destined for imminent extinction. At least for the foreseeable future, parties in dispute will not seek out avatars instead of humans, nor will patients prefer to be diagnosed by robots rather than actual physicians. However, in medicine and in ADR, just as in countless other professional disciplines, it is clear that the most successful practitioners will be those best able to harness the "superhuman" capacities that artificial intelligence devices continue to develop.

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