INDUSTRY TRENDS

In a "ShotLink Nation," Coaches Can Seek Results Using Stats and Data

Has golf arrived at its "Moneyball moment"? A wave of number-crunching tools should empower the golf coach to dissect on-course performance, offer strategy tips that aren't guesswork and supervise practice in a way that fast-tracks lower scores.

By David Gould, Staff Editor

Columbia University's Mark Broadie (left) and top coaches including Sean Foley (right) are digging deeper than ever into golf's numbers game such as at this conference hosted by MIT.

Numbers, stats, metrics—lately it seems that the game of golf really piles them high. Or, put it this way: Swings, strokes and their results during rounds of golf have been generated for centuries—it's only now that we can efficiently capture and analyze the data. As a tournament, a season or even a player's whole career grinds on, he or she keeps hitting toward the target with a certain club, from a certain yardage, in a particular lie or surface condition. The digital tools for recording, storing, retrieving and analyzing what happened are now basically in our pockets—or attached to our grip caps. Using measurements, metrics and round-tracking to unlock the mysteries of how a golfer scores is dramatically more possible than ever.

Then there's all the off-course data generated by Trackman, Flightscope, SAM PuttLab, K-Vest, even TPI and the other fitness/wellness platforms. *For teaching professionals, part of the job now is deciding which metrics matter to which students and how to use improving readouts to underscore the value of a coaching program.* To get it all figured out and translated to the consumer will take time, and likely some trial-and-error.

One of the early converts to statistical performance analysis in golf was a trained systems analyst named Bob Ming who caddied on the pro tours in the 1990s so that he could study top-rank players and perhaps pick up clients for his fledgling company. Known as "Cowboy" due to his fondness for 10-gallon hats, Ming would at times irritate players he caddied for by cantankerously urging them to practice the skills they were weak at, as indicated by his records of their competitive rounds. "If you see a young tour player practicing his middle irons," Ming once told a group of golf writers, "you can be sure he has been hitting his middle irons well. These guys practice what's working, because it feels good and builds their confidence." The eight-foot putt was his go-to drill on the practice green, based on a lengthy study of one-putting and two-putting. "Make 'em from eight feet or we don't eat," was Ming's mantra.

The recent publication of "Every Shot Counts" by Columbia University professor Mark Broadie is part of what seems to be a turning point in coaching, learning and strategizing. Broadie's new book comes along just as the ShotLink system for recording and analyzing tour-player strokes (and the results of each stroke) celebrates a 10-year anniversary. Is this golf's "Moneyball" Moment? Are we getting closer to the point when golf instructors and coaches turn to their students and flawlessly explain their scoring strengths and weaknesses—then fast-track them to lower scoring?

"I know probably better than anyone how easy it is to over-tax the golfer's capacity to record data and also overwhelm their capacity to process it," says Peter Sanders, inventor and marketer of the Shot by Shot game-analysis system and tool. Members of Proponent Group who employ Shot by Shot—and quite a number do—are ahead of the curve. Philadelphia-based Dom DiJulia is one such member. His website even shows graphs that depict a student's "Long-Game Handicap" and "Putting Handicap" as they

fluctuate during a set period of time. Henry Brunton is another member who has taken the deep dive into performance analytics and made it truly work for his golfers.

It's interesting to note that the recent *Golf World* cover story on the "Data Game" in golf also spotlighted the winner of the Hyundai Tournament of Champions, at Kapulua. Finishing first was Zach Johnson, whose coach, Mike Bender, took the leap years ago and retained the services of Sanders as a guide and monitor of what Johnson and Jonathan Byrd were actually doing on the golf course to help or hurt their scoring. "When Mike and I first talked, he was using the old version of the PGA Tour statistics to try and make sense of his players' performance," recalls Sanders. "Those stats were probably worse than having no information at all. The 'Strokes Gained' metric is where you start to understand what's going on."

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Broadie's book, "Every Shot Counts," is a strong endorsement of Strokes Gained, with long chapters and eye-catching tables that start to identify who on tour can out-putt the field on any kind of a regular basis and who can move from tee to green in a consistently above-average manner. At many junctures, the author will qualify his citation of facts with the phrase "… in the ShotLink era." That's his nod to the decade-old data-crunching machinery represented by ShotLink, with its a capacity to probe, test, theorize—then confirm or deny the theory—how tour players are able (or not so able) to attack golf courses. It is only now being manipulated in a way that approaches what sabermetrics, a.k.a. Moneyball, provides to baseball.

One challenge for teachers, golf writers and the golfing public is to understand that PGA Tour ShotLink data is one discrete pool of information and analytics, pertaining only to the world's best. There are certain metrics that anyone in the golf spectrum can hang their hat on and use as a guide to performance, strategy and what to practice. A classic example is the tap-in putt, which on tour is basically 24 inches in length. Baseline "score" for that length is 1.008 strokes. The three-putt on tour begins somewhere between 30 feet (1.981 is the ShotLink composite for tour players at this length) and 35 feet (where 2.021 is the composite).

It's worth mentioning that some of the lessons and conclusions that Sanders hears coming from Broadie don't jibe with his own findings. "Gaining 15 yards off the tee seems to be a very widely prescribed path to lowering average golf scores," he paraphrases. "I don't share that point of view." Reading through the book, which has a foreword by Sean Foley, readers come upon various highlights of the research, including:

- "Among the 40 top PGA Tour pros, approach shots accounted for 40 percent of their scoring advantage, driving accounted for 28 percent, the short game 17 percent and putting 15 percent."
- "Across a range of golfers from amateurs to pros, longer hitters tend to be straighter hitters."
- "Most golfers [in laying up] will score worse from 80 yards from the hole than from 30, even if every layup to 30 yards lands in the rough and every layup to 80 yards lands in the fairway."

Remember, the pro tour is the laboratory where all these discoveries are taking place—just as major league baseball, not your corporate softball league, is where "Moneyball"-type data revealed what really matters to wins and losses on the diamond. Strokes gained putting (you may already recognize "SGP" as a featured PGA Tour stat on its website) is the tour average number of strokes to hole out minus the number of putts taken by the golfer being evaluated—adjusted for distance. In a given round, Player X has so many feet of first putts: if he hit every approach shot (or par-3 tee shot) to 10 feet, that would be 180 feet of putts, and there is a known tour average from that distance.

Far from the pro tour fairways, the average golfer also needs baselines and benchmarks. To some degree, they can come straight from that player's own previous performance. The 2014 season is only slowly gathering steam and it will likely be a while before we get reports of golf professionals actively exploiting the new Game Golf technology. But in a recent radio interview, John McGuire, founder of the Galway, Ireland (now Silicon Valley-based) company that markets Game Golf said early adoption of the technology was highly encouraging. Golfers who have purchased their Game Golf hardware/software, packages, which uses a belt-mounted module and dime-sized tags on each club to produce dense but easily analyzed data from a round, have actually been making YouTube demo videos and suggesting product tweaks on a daily basis.

The company's launch of Game Golf at the 2014 PGA Show was mightily enhanced by the precedent-setting endorsement delivered by the PGA of America, along with a previously brokered partnership with Golf Channel. McGuire said his company had "completely blown our first-quarter projections out of the water." The upshot of a strong Game Golf rollout—and success on the part of similar track-it-yourself products – is that ShotLink-type data will be generated for use directly by that student's teacher or coach.

Practice was always a basically good idea, but supervised practice targeting the skills proven to be most needed and influential—followed by post-mortems on the round that accurately nail each of the stroke-saving or stroke-spending decisions—is a whole new ball game for both the golf coach and the golfer. Within the activities of Proponent Group, an ongoing effort will be made to gather and disseminate the wisest and most effective practices among teachers who go the Moneyball route and apply numbers and data successfully to the one-on-one teaching and coaching challenge.