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## An Interdisciplinary "Six Tools Player"

by

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*Editor's Note:* The following biographical text by Daniel Stokols has been edited for this special volume. It was originally written as a presentation on the occasion of Julie Thompson Klein's 2016 Science of Team Science (SciTS) Recognition Award to honor her for her important and sustained contributions to the Science of Team Science field. Stokols presented Klein with the award on May 18, 2016, in Phoenix, Arizona.

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Julie is Professor Emerita of Humanities at Wayne State University, where she taught from 1970 to 2016. She earned her PhD in English from the University of Oregon. She served as President of the Association for Inter-disciplinary Studies (AIS) in 1987-1988 and received AIS's Kenneth Boulding Award for Outstanding Scholarship on Interdisciplinarity in 2003. Julie is the 2016 recipient of the Science of Team Science (SciTS) Recognition Award

Before I say more about Julie's scholarly and professional achievements, I want to take a moment to mention some of her passions outside of academia. First, as many of you may know, Julie loves a variety of musical and artistic genres, from blues, New Orleans jazz and zydeco, to modern dance, burlesque, drama, and film. Also, Julie is an ardent baseball fan, especially of the Detroit Tigers and beyond the Tigers, Julie and her husband, George, are very knowledgeable about baseball history and lore.

Actually, baseball offers some very apt analogies for describing just why Julie is so highly esteemed by her colleagues and students. I don't profess to have a lot of expertise about baseball, but I did do some little league coaching back in the day and when I was around other coaches, I'd hear them

encourage their team members to become "Five Tools Players." I wondered what the heck a "Five Tools Player" is, but I soon learned that it is someone who:

- 1. *Hits for Average* like Ichiro Suzuki of the Mariners, who knows how to hit behind the runner and get on base consistently;
- 2. *Hits for Power* like Cecil Fielder, Albert Pujols, Mickey Mantle, Babe Ruth, and fellow home run sluggers;
- 3. *Has Great Throwing Ability* like outfielders Mike Trout and Kirby Puckett;
- 4. *Has Excellent Fielding Ability* like shortstop Ozzie Smith of the Cardinals;
- Has Outstanding Running Speed and Endurance like the speedy, base-stealing Ricky Henderson or always-in-the-lineup Cal Ripken, Jr.;

There's also a *sixth tool* not often mentioned in baseball, although the data crunchers who come up with *Moneyball* algorithms know of its importance.

6. This sixth tool is suggested by Anita Woolley's research on collective intelligence namely, *the team member who makes fellow players collectively better at what they do* – the utility player whom you can put anywhere on the field and their presence always enhances team performance.

For my purposes here, I will refer to the "Six Tools Player" instead of "Five." It's clear to me that as a metaphor, the six tools of baseball are very apropos Julie's scholarly and professional achievements.

Consider for example *Hitting for Average*: Julie has been a prolific contributor of high quality scholarship on interdisciplinary and transdisciplinary team science over several decades. One needs only to look at her CV to realize just how productive Julie has been and continues to be. Julie epitomizes the capacity for *consistent and sustained productivity*.

What about *Hitting for Power*? Julie indeed has hit *a lot* of home runs throughout her career. Her high-impact journal articles, chapters, and books have advanced our understanding of interdisciplinarity, transdisciplinarity, team science, convergence science, and the digital humanities. Her books *Interdisciplinarity: History, Theory, and Practice* (1990) and *Crossing Boundaries: Knowledge, Disciplinarities, and Interdisciplinarities* (1996) gave form to the field of Interdisciplinary Studies. Her books *Humanities, Culture, and Interdisciplinarity: The Changing American Academy* (2005) and *Creating Interdisciplinary Campus Cultures* (2010) traced the history and rise of interdisciplinarity in institutions of higher learning. She is Co-Editor of the *Oxford Handbook on Interdisciplinarity*, first published in 2010, followed by

the second edition in 2017. She also published her pioneering book, *Inter*disciplining Digital Humanities, in 2015.1

As further evidence of Julie's ability to hit for power, she has garnered many academic distinctions and awards, including (among others), her

- Fulbright Professorship in Nepal (1987);
- Mellon Fellowship in Digital Humanities at the University of Michigan (2008);
- Kenneth Boulding Award for Outstanding Scholarship on Interdisciplinarity (2003);
- and at Wayne State University, the President's Award for Excellence in Teaching (1985), the Graduate Mentor Award, and the Board of Governors' Distinguished Faculty Recognition Award (1991).

And then there's Julie's *Throwing Ability*. Just as baseball players must feed the ball consistently to fellow teammates, academics must feed ideas to others. Julie is a well-spring of creative ideas that she generously shares, all of which help to enhance the scholarly efforts of her colleagues and students. Julie also generates collegial synergy at professional levels through her numerous advisory board memberships and contributions.

As for the fourth tool, Fielding Ability, Julie covers the field of team science (and the other arenas in which she plays) as well as anyone. In baseball, there's the relay person, who receives the outfielder's throw and fires the ball to the catcher at home plate, who tags out the base runner trying to score. Julie is a boundary spanner (her neologism) and bridge builder par excellence, comparable to the baseball player who relays an outfielder's throw to the catcher, especially reflected in her ability to connect team science scholars from around the globe. Examples of Julie's international bridge-building efforts include her visiting appointments and lectureships in Nepal, Japan, New Zealand, Mexico, Brazil, Uruguay, Australia, Russia, and Ireland, as well as Julie's

- service as a consultant to the Swiss National Science Foundation on transdisciplinarity;
- membership in the Academy of Finland's Integrative Research Team:
- service as advisor to the Royal Netherlands Academy of Arts and Sciences on evaluation of inter- and transdisciplinary research;
- and closer to home, professional contributions as President of the Association for Interdisciplinary Studies (1987-88);
- service as Founder and Director of the Digital Humanities Collabo-

<sup>&</sup>lt;sup>1</sup> Editor's Note: In 2019 Klein is working on another book project titled Beyond Interdisciplinarity: Boundary Work, Communication, and Collaboration in the 21st Century.

- ratory at Wayne State University;
- and service as an Advisory Board member for several organizations including HASTAC, InSciTS, the NCI Team Science Toolkit, and many others.

Turning to the fifth tool, Running Speed and Endurance, Julie personifies resilience and endurance. She became Professor "Emerita" in 2016 but has not slowed down one iota in scholarly productivity and professional engagement. Julie has tremendous stamina. Whenever Julie has been thrown a nasty curveball, or has been brushed back or even knocked down by a tight inside fastball, she's always gotten right back up with her indomitable courage and will power, reaching out to and caring for others as well, all the while remaining as vibrantly creative and professionally engaged as ever.

Julie is truly an academic superstar who possesses the aforementioned five tools as a scholar, mentor, and colleague. But she also possesses that sixth tool I mentioned earlier: She makes her colleagues and students better in their own right through the tremendous energy and supportiveness she invests in her collaborations with others. She has the special distinction of being both a highly prized superstar and a utility player. So, Julie genuinely possesses all the exceptional qualities of a "Six Tools Player"!

And I should add, Julie is a very modest person. When she was informed that she had been selected to receive the SciTS Recognition award in 2016. she expressed her embarrassment and even suggested that she should decline the award so that another deserving colleague could receive it.

Julie, for all of these reasons, we are fortunate to have you as our colleague and role model, and we treasure your contributions to the advancement of multiple interdisciplinary studies fields. Thank you for all you've done!

Biographical Note: DANIEL STOKOLS is Chancellor's Professor Emeritus at the University of California, Irvine and served as founding dean of UCI's School of Social Ecology. His research spans the fields of social ecology, environmental and ecological psychology, public health, and transdisciplinary team science. He is co-author of Social Ecology in the Digital Age (2018) and the National Academy of Sciences report on Enhancing the Effectiveness of Team Science (2015). He may be reached at dstokols@uci.edu.