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Leveraging advising technologies to address achievement gaps

Hoori Santikian Kalamkarian
Postdoctoral Research Associate
Community College Research Center

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# Community College Research Center

A leading independent authority on two-year colleges based at Teachers College, Columbia University. Founded in 1996, CCRC conducts research on the issues affecting community colleges and works with colleges and states to improve student success and institutional performance.

Areas of research include:
- High school to college transitions
- Developmental education and adult basic education
- Student services and financial aid
- Online learning and instructional technology
- College completion and transfer
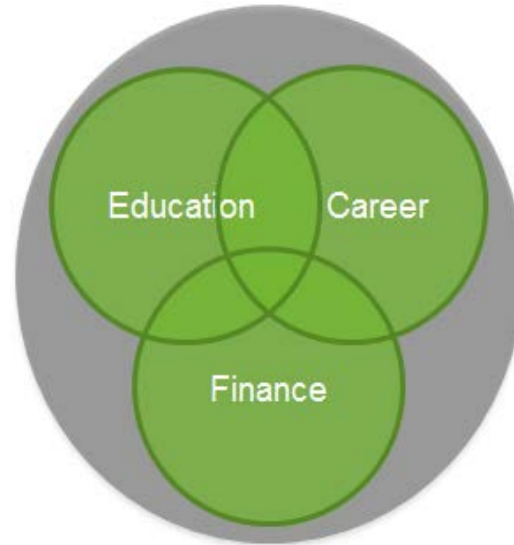- College to career and workforce education

Technology-mediated advising leverages advising tools to deliver holistic student support.
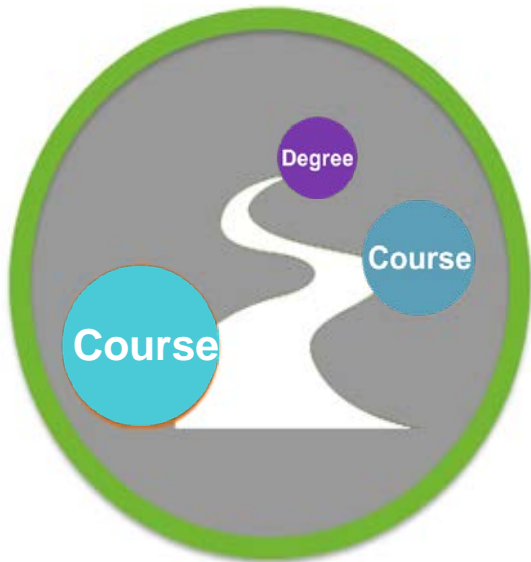
Degree Planning + **Coaching & Advising** + **Early Alerts & Risk Targeting**

Technology-mediated advising can facilitate strategic, proactive support for underrepresented students.

Early alert, predictive analytics enable advisors to be responsive.

"Quickly, when a faculty member raises a flag or a kudos, **we have coaches linked to those students**. So if somebody on my caseload gets flagged I get notified of it. **So I'm immediately on the phone with them, contacted them**, in addition to everyone else."

- Student success coach for first generation students

Technology systems provide insight into subgroup differences.

"There's **not much sophistication in the data, but there is power in the information that they reveal** and where we need to pay our attention. …And then to start to understand, you know, the data in terms of like what the relationships are between graduation and **transfer/non-transfer, male/female, race/ethnicity, Pell/non-Pell**."

– Administrator

Advising technologies can be leveraged to integrate supports.

"So I think as students self-report things **when they first start to log into [system] it will ask if you're first-generation**, it will ask about where they graduated from high school, if anybody else in your family went to college. So you can determine pretty quickly if they are high risk and first generation… **So very quickly that becomes one of their resources that no person has to know to reference them**."

- Advisor

Degree, career planning tools facilitate discussion of students' sense of purpose.

- Career planning tool provides summary report of career assessment that advisors can use to keep students focused on their goals.

Occupation Title	Match Quality ▾	Job Zone
Audiologists	Very Strong	Zone 5
Medical Transcriptionists	Strong	Zone 3
Dentists, General	Good	Zone 5
Computer and Information Systems Managers	Fair	Zone 4
Chemical Engineers	Weak	Zone 4

Technology-mediated advising also poses the risk of exacerbating gaps.

Early alert, predictive analytic data may exacerbate gaps if used to limit options...

*"I mean, geez, you can't take a student that walks in and say, '**Okay, here's your demographic background, here's your high school GPA, and here's your program of study that you want to be… You're at-risk so let's put a piece of tape on you** and write that blah, blah, blah.' And you get to walk around knowing that you're just about to fail any day…"*

- Advisor

… or label students in ways that reify existing biases.

"We have one of our school systems, one of the three that we serve, that has really flipped in the last twenty years. **They've become a majority-minority school divis**ion.… They've lost tons of population, closed schools, and as often happens, test results have plummeted. **We want to be very cautious in how we frame these conversations so that it doesn't look like any school or any division or any population is singled out**…"

- Administrator 11

Technology-mediated advising presents both potential and risks.

Potential for decreasing achievement gaps	Risks of exacerbating achievement gaps
• Inform targeted outreach and advising services. • Identify subgroup differences in alerts, kudos or other systems. • Provide better referrals. • Reinforce underrepresented students' sense of purpose in attending college.	• Responding to early alert, predictive data by pre-determining students' potential and limiting options for students. • Framing the data in ways that reinforce negative perceptions, biases of underrepresented subgroups.

For more information

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Community College Research Center
Teachers College, Columbia University
525 West 120th Street, Box 174, New York, NY 10027
E-mail: ccrc@columbia.edu Telephone: 212.678.3091

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