

96. Accordingly, more than 70% of GSX user logins are bots rather than human users and are falsified.

2. Multiple Confidential Witnesses² Confirm in Detail that GSX Techedu’s Customer Base is Grossly Inflated by Its Use of Bots and Other Methods to Falsify Student Enrollments

a. CW-1

97. Confidential Witness 1 (“CW-1”), a former GSX “Android Engineer” who worked at GSX’s Beijing headquarters in the “Sales and Marketing” department from approximately April 10, 2019 through approximately June 20, 2020, has firsthand knowledge of GSX’s rampant use of bots to falsify student accounts and to use those accounts log into classes at specified times. According to CW-1, the accounts also were used to write positive reviews about the courses.

98. According to CW-1, the Beijing headquarters consists of dozens of “mobile phone rooms,” each packed with shelves of “many thousands” of mobile devices. GSX employs, and actively recruits, hundreds of engineers at the Beijing headquarters, “unlike any ordinary education company.” CW-1 was paid directly by GSX to “brush” course enrollments.

99. CW-1’s role as an “Android Engineer” was twofold. She spent about one-quarter of her time harvesting user data from private WeChat accounts to be used to set up fake student enrollment accounts. The other three-fourths of CW-1’s time was devoted to “reverse engineering codes” for Android mobile devices, and then reprogramming such devices with the codes that CW-1 generated. After programming a given device with a given code, it would execute specified commands automatically. Most devices were set up with the user data that CW-1 harvested from WeChat accounts and were programmed with bots that would

² To protect their anonymity, all Confidential Witnesses are ascribed feminine pronouns.

automatically open WeChat with the stolen user data, enroll in GSX's promotional courses, log-in to the classes at specified times, and then write positive reviews about the courses. A smaller number of devices were programmed to open WeChat and then send thousands of advertisements for GSX courses to random WeChat account users, others were programmed to "contact students" through WeChat, while still others "taught classes" on GSX's Weishi platform.

100. According to CW-1, some of the Sales and Marketing personnel, including fellow "engineers," also taught classes but did not have teaching credentials.

b. CW-2

101. Confidential Witness 2 ("CW-2") is a former GSX an engineering manager who worked at GSX's Beijing headquarters beginning in 2015, and has direct knowledge of all three ways in which GSX falsified student enrollment figures. In her role as engineering manager, CW-2 directly supervised software engineers.

102. According to CW-2, GSX began using bots to "brush" enrollments in 2015. In that year, GSX had "few students," but GSX "want[ed] the teachers to feel that there were many." In a class of "just five students," for example, GSX would enroll "500" bot-generated users, "letting the traffic volume become very big" so that the students and teachers would "feel that the platform's volume was huge."

103. CW-2 explained that, to accomplish this, throughout the Class Period GSX's engineers installed a software known internally as "Group Control" through which GSX instructors and tutors remotely manipulated and programmed the behavior of registered student accounts. These accounts ran the software applications that other engineers, such as CW-2, installed on thousands of mobile phone devices, which became bot-controlled devices that GSX operated from its headquarters. According to CW-2, each of these bot-controlled devices is

assigned to a registered mobile phone number, and GSX's engineers assigned to each bot-controlled device a WeChat account number (which, in China, must be linked to a real person) and then programmed the bot-controlled device with the "Group Control" software and several other codes. When executed, these other codes caused the bot-controlled devices to purchase course enrollments, sign into and out of classes, create new student accounts, and send messages to other students, tutors, and instructors.

104. According to CW-2, more than half of the office space at GSX's Beijing headquarters is occupied with servers, each of which controls approximately 1,000 bot-controlled devices. According to CW-2:

GSX itself has a room, in this computer room there are over 10,000 machines, we call them the group robots, which is used to control [the operation]. One person can control about 1,000 cell phones without a problem, and these can be operated remotely or from the room, I can control all of the machines. Then I can imitate the data generated by a real student or real buying, this is already a very mature technology.

105. Specifically, GSX's instructors and tutors used "Group Control" to program the Bot-Controlled Devices' general rates and patterns of attendance over the course of a semester ("personality traits"), and to manipulate the Bot-Controlled Devices' rates and patterns for each course session ("behaviors").

106. In addition to her knowledge of GSX's use of bots to falsify student enrollments and activity, CW-2 also has knowledge of GSX's two other two additional brushing schemes. First, as explained further by CW-3, GSX contracts with third-party brushing firms to brush its enrollment figures further. In this scheme, CW-2 explained that she "would sign a contract with [the third-party brushing company], I would put ¥1,000,000 into ads, and [the third-party brushing company] would promise me, for example, that 2%, that [the third-party brushing company] can keep ¥20,000" as "commission." In this scenario, according to CW-2, the third-

party brushing company was required to use the remaining ¥980,000 to purchase GSX's class with "virtual cell numbers or WeChat account numbers." GSX reported these enrollments as "revenues" and reported the commissions as sales and marketing expenses. Depending on the number of enrollments a given third-party brusher could fabricate, the commissions ranged between two and five percent of the course's tuition price. Other third-party brushers specialized in fabricating attendance data for GSX, according to CW-2.

107. In a third scheme, as corroborated by CW-4, GSX paid instructors and tutors to brush sales. CW-2 recalled she entered contracts with certain of the Company's instructors and tutors, pursuant to which GSX agreed to promote their courses with "ads" and other promotional materials in exchange for the instructors' and tutors' agreements to purchase fake enrollments. In this scenario, GSX advanced the instructors and tutors "¥1,000,000," which the instructors and tutors used to purchase enrollments. The Company's instructors and tutors were motivated to do so, CW-2 explains, because the Company promoted their courses on the "platform-run ads." Although no financial consideration was exchanged, this tit-for-tat "commission" or "payment" induced several instructors and tutors to participate in this scheme.

c. CW-3

108. The Company falsified student enrollments, including student enrollments in regularly priced courses, using third parties, according to Confidential Witness 3 ("CW-3"), who also has first-hand knowledge of GSX's pervasive "brushing" activities.

109. CW-3 was employed by a third-party brushing firm in Beijing from January 1, 2019 through December 31, 2019. In this role, she was regularly paid commissions by GSX to enroll in GSX's courses with fake or assumed identities and to write positive reviews. CW-3 explains that "GSX management" had a contract with this third-party brusher, pursuant to which CW-3 and her colleagues would assume the identities of "and conduct activities as if [they] were

real students.” CW-3 would “buy classes, write positive reviews, and join in the large classes to boost up [GSX]’s head counts” with harvested user data from various social media platforms, including WeChat. According to CW-3, in 2019, the third-party brusher’s employees, including CW-3, accounted for approximately 40% of all enrollments in GSX’s K–12 courses, and wrote approximately 35% of the positive reviews for GSX’s K–12 instructors. That is, the third-party for which CS-3 worked falsified approximately 40% of all enrollments in GSX’s K–12 courses in 2019. GSX paid the third-party brusher ¥50 per enrollment.

110. GSX planned its third-party brushing months in advance. Each quarter, GSX prepared and sent a “detailed brushing plan” to the third-party brusher. These plans specified the dates, times, course titles, tuition rates, and instructors for whom the third party was to focus its brushing efforts. CW-3 and her colleagues referenced and used these plans daily to ascertain the GSX courses in which to enroll and then attend, and the GSX instructors about whom to write positive reviews.

111. As part of the scheme, when the Company sent its brushing plans to the third-party each quarter, GSX concurrently transferred the full amount of the tuition fees, together with commissions, for the agreed-upon fake enrollments. Thus, each time CW-3 and her colleagues enrolled a fake student in one of GSX’s courses, GSX was not generating new revenue or acquiring any customers. Instead, the Company was paying the third-party brusher to generate fake student enrollments.

d. CW-4

112. GSX also forced its sales employees to falsify student enrollments. Confidential Witness 4 (“CW-4”), a former GSX employee, worked within GSX’s “Sales and Marketing” department as a “Course Consultant” for the VIE in Zhengzhou, China from June 2019 through January 2020. In this role, CW-4’s official job duties were to solicit potential customers and to

generate enrollments for GSX's high school courses offered by GSX's Gaotu Classroom brand. CW-4 also assisted GSX's instructors with selling their courses to potential students and "converting" students enrolled in promotionally priced courses to regular-priced courses. CW-4 has first-hand knowledge of GSX's pervasive enrollment "brushing" activities, and her account makes clear that the Company's brushing activities were not limited to its Beijing headquarters. CW-4 reported to the Gaotu-Zhengzhou Sales Manager, who reported to the Gaotu Sales Director.

113. CW-4 worked at "Zhengzhou Center," a property that the Company acquired in July 2019 for ¥75 million—the same property that Defendant Chen would later represent to investors that GSX "purchased" for ¥320 million in January 2020. According to CW-4, when the Zhengzhou Center was established in July 2019, a team of "10–20 people" occupied the property, all of whom were Course Consultants tasked with soliciting customers and generating enrollments for GSX's online business. By December 31, 2019, CW-4 says that GSX occupied two floors at the Zhengzhou Center.

114. According to CW-4, GSX required the Course Consultants to "brush" sales and enrollments, and they did so. During the last week of each month, the Course Consultants assumed false identities—often using the WeChat credentials of former promotional students who did not "convert" to a regular-priced course—to purchase additional student enrollments. CW-4 and the other Course Consultants took screenshots of these sham transactions and sent them to potential customers, claiming falsely that there "were only a few spots left" in the given course, hoping to induce a panic sale. CW-4 and the other Course Consultants also disguised themselves as students to post positive course and instructor reviews on the various parent and student WeChat groups.

115. CW-4 stated that course consultants who refused to falsify enrollments and sales, or who failed to keep quiet about this brushing activity, were fired. For example, in November 2019, one of CW-4's colleagues, a fellow course consultant, informed the parent of an enrolled student that several of the participants in the student group were GSX employees. Immediately thereafter, GSX terminated the colleague's employment.

116. CW-4 explained that "the Company exerted this kind of pressure on everyone, from teachers to salespeople to managers," because the Company needed "to make a profit." Those whose sales records remained low were fired or demoted. Indeed, CW-4 recalled that in September 2019, one of the "original 10" Case Consultants at Zhengzhou Center was demoted to an entry-level position because of her unsatisfactory sales performance. Salespeople, including Course Consultants like CW-4, earned a commission on each course they sold, and commissions, which ranged between five and ten percent of the tuition fees remitted by the salesperson's customers each month, were contingent on the salesperson "converting" an acceptable number of customers in that month.

117. At the beginning of each month, the Zhengzhou Center Sales Director circulated a report from GSX headquarters to the Course Consultants, including CW-4. This report had "a number" and their job was to meet that target. In her role as a Course Consultant, GSX's compensation was based in substantial part on her success in "converting" customers from the promotional courses to the regular-priced courses. Failure to meet the monthly target established in Beijing was "unthinkable." For these reason, course consultants routinely falsified enrollments and sales.

118. CW-4 explained that the Company "does not spend much on attracting potential customers" because unlike its competitors, which generally promote sales by showing students

and parents recorded lessons, “GSX offers live trial lectures at a very cheap price — ¥9 per course — and has salespeople follow-up with these clients until they eventually purchase higher-priced courses.”

119. CW-4 further explained that the culture at GSX is one in which deception in many forms is rampant and encouraged. WeChat accounts with promotional content “misrepresented teacher qualifications” and “made false promises and dishonest claims,” among other sales tactics that “cannot be talked about openly.” As CW-4 said, “We would definitely not tell [the customers] the truth.” According to CW-4, GSX directed the Course Consultants to misrepresent the tutors’ credentials and to tell customers that the tutors graduated from “211” or “985” universities, a list of prestigious institutions so designated by the Chinese government. In reality, most tutors never attended university—most graduated from junior colleges. Thus, CW-4 and the Course Consultants routinely “photoshopped tutors’ diplomas and sent them to customers in WeChat groups.”

120. GSX also directed the Course Consultants to make false promises and dishonest claims to customers. Specifically, each day at GSX’s instruction, the Course Consultants “promised parents of potential students that the tutors would provide one-on-one service for each student 24 hours a day,” when in fact “each tutor took care of more than 200 students” and had no time to devote individualized attention to each student. To encourage promotional customers to “convert” to regular customers, also at GSX’s express direction, the Course Consultants offered “free, proprietary study materials” to students and parents. These study materials were not proprietary; in fact, the Course Consultants were given copies of competitors’ materials; they reformatted those materials, affixed a GSX logo to them, and then distributed the materials to the newly-enrolled customers.

121. After Course Consultants would falsify student enrollments into promotional classes, those fake “students” would not convert to full-tuition courses. This phenomenon contributed to a very low conversion rate of “students” from promotional courses to regularly priced courses: CW-4 explains that only 10% of promotional students would “convert” from a promotional course to a regular-priced course. Thus, some ninety percent of GSX’s enrollments—who paid ¥9 for their trial course—never purchased a regular-priced course. Although fees for the regular-priced courses were negotiable, CW-4 explains that students who enrolled in the regular-priced courses paid between “¥3,000 and ¥5,000 per course.” Students who chose to take a full curriculum on all subjects—fewer than five percent of all enrollments—paid a semesterly tuition, ranging between “¥20,000 and ¥30,000.” Only about 20% of students enrolled in a promotional course would finish all of the classes.

e. CW-5

122. Confidential Witness 5 (“CW-5”) is a former customer and former student of GSX, and has firsthand knowledge from the perspective of a student that GSX enrolled fake “students” in its classes. CW-5 is also an independent English teacher who operates a private English vocabulary learning platform in China, “CW-5 English.” Since 2008, CW-5 has posted blogs about her English-learning journey and has authored an English vocabulary book for Mandarin speakers. On or about July 13, 2016, CW-5 paid GSX to market her services as an independent English teacher.

123. In September 2019, after receiving an unsolicited advertisement from GSX in her business’s official WeChat account, CW-5 enrolled in GSX’s 200-session high-school level promotional English vocabulary course titled “Magnetic Levitation 38000” and paid ¥5,080 in

tuition (USD \$707.66³). The course was to meet for four hours per day, five days per week. Upon enrolling in the course, CW-5 received invitations to join two WeChat groups, one for students enrolled in the course, and the other for parents of students enrolled in the course. Classes began at 8:00 a.m. on the morning of September 3, 2019.

124. On the first day of class, the instructor taught for about one hour, after which “there was nothing” in the classroom, so CW-5 sent a message to the student and parent WeChat groups, inquiring whether any others were suddenly unable to view the course content. In the parent group, two users, each purporting to be parents of enrolled students, responded within seconds of each other with identical messages, explaining that it was the “Self-Study Period.”

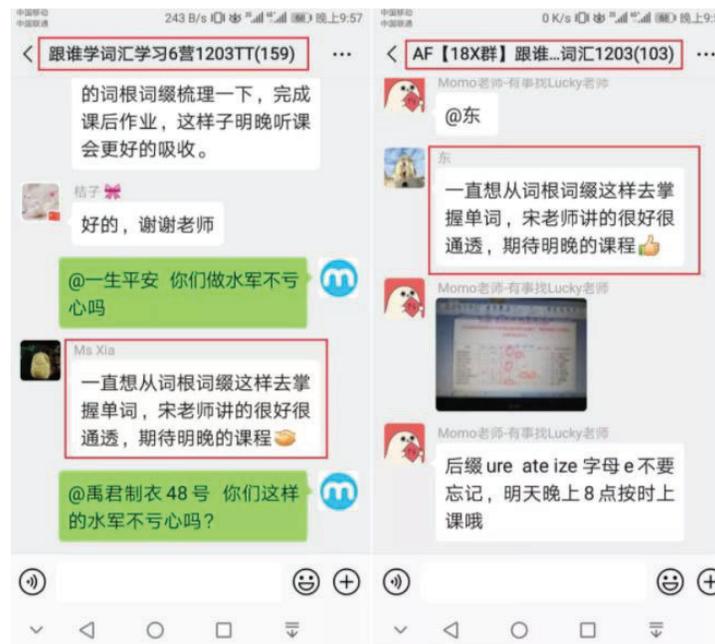
125. Approximately ten minutes after the class period ended, at around 12:10 p.m., individuals purporting to be students and parents, each “with different WeChat IDs sent out as many as five groups of almost identical praise” for the instructor in both the student group and in the parent group.

126. For example, two “different” individuals in both groups said: “Teacher Song really hit the nail on the head, love it,” using identical Chinese characters in the same order:

³ Board of Governors of the Federal Reserve System, *Foreign Exchange Rates—H.10: United States Dollars to Chinese Yuan Renminbi* (Sept. 3, 2019), https://www.federalreserve.gov/releases/h10/hist/dat00_ch.htm.



127. In another example, two “different” individuals in both groups said: “I always wanted to learn from root words like this, Teacher Song did very well. Perfect, looking forward to tomorrow’s class,” using identical Chinese characters in the same order:



128. In another example, two “different” individuals in both groups said: “I enjoy this methodology for memorizing words. Doing more with less, I like it,” using the same Chinese characters in the same order:



129. In another example, two “different individuals in both groups said: “The teacher speaks very well, very helpful for children. Great!,” using the same Chinese characters in the same order:



130. According to CW-5, each of the class sessions she attended followed the same routine: an instructor would teach for about one hour and then leave the platform. Ten minutes after the class was scheduled to end, different users in both the student and parent groups would post favorable reviews of the lesson and of the instructor using identical grammatical syntax.

131. On December 5, 2019, CW-5 published an article through her business's official WeChat account. In the article, CW-5 claimed that most of the positive reviews were written by GSX personnel, who hacked the user IDs of random WeChat users, enrolled in the courses, and then wrote the reviews after each class.

132. The same day, a representative from GSX's legal department sent CW-5 a message to CW-5's official WeChat account and threatened her with legal action:



GSX Legal: [CW-2], here is how it is: Firstly, we offer free courses that are accessible to the public. There are teaching assistants in group chats who regularly notify people to attend classes in order to ensure that everyone has a satisfactory experience; there is no sign of fraud. Secondly, your article consists of assumptions and speculations about our company. If such content brings harm to our company's reputation, among other aspects, we intend to resolve these issues through reasonable and effective legal action.

[CW-1]: Well, prove that the five groups of identical positive reviews I included in my article are not a coincidence.

[CW-1]: But having said that, what happens if I continue to find many similarities amongst positive reviews in the future?

[CW-1]: We can follow the legal procedure now if you would like.

133. On January 14, 2020, CW-5 published a second article on Sina Weibo, a popular Chinese microblogging website, detailing her concerns and suspicions of GSX’s rampant brushing. On February 21, 2020, Qing Feng an instructor employed by GSX’s Gaotu Classroom brand, posted the following public response:



高途教务青枫老师 黑名单

我看浏览了一下你写的文章，内容写的好不好不评论，单从流量的角度，其他所有的文章最多的阅读量不超2k，大部分都是几百，只有这一篇过万，所以你是蹭热度吸流量？还是专门黑这个叫什么跟谁学的机构？现在的人真的不负责，只有这一篇这么多评论？还都是支持你？搞笑吧，把读者当傻子？

02-21 12:11:26

Qing Feng: I read the article you wrote. I won’t comment on how well written the content is. From an analytical point of view, you have fewer than 2,000 views on your other posts—most of them only having several hundred. This is your only post with over 10,000 views. Are you trying to go viral, or are you intentionally bad-mouthing the organization called GSX? People are so irresponsible nowadays. Only this article has so many comments—and the comments even support you. This is hilarious, you treat your audience as fools.

134. Despite GSX’s threats and denials, former GSX employees directly involved in the Company’s brushing activities corroborate CW-1’s findings.

f. CW-6

135. Confidential Witness 6 (“CW-6”), a former GSX tutor, has first-hand knowledge of GSX’s pervasive “brushing” activities and of the actual qualifications of GSX’s instructors and tutors. Her account corroborates and elaborates on that of CW-4.

136. CW-6 worked as a “tutor” of first-year high school chemistry for GSX’s Gaotu Classroom brand at Zhengzhou Center from approximately June 15, 2019 through July 31, 2019.

She worked alongside approximately 40 other first-year high school chemistry tutors, and according to CW-6, “each tutor had about 200 students.” In this role, CW-6’s job duties were to solicit potential customers and enroll new customers in promotional courses.

137. CW-6’s duties were twofold. She spent less than 30% of her time “assisting instructors in teaching, grading students’ assignments, answering students’ questions, and communicating with parents in WeChat groups.” The lion’s share of her time—more than 70%—was devoted to sales. At GSX’s instruction, CW-6 and the other tutors “encouraged clients of the trial lectures to purchase regular-priced courses, and at the end of each course period, they encouraged the clients to renew their purchases.”

138. CW-6 and the tutors routinely assumed alternative identities to purchase promotional courses to inflate enrollment numbers. CW-6 and the tutors did this using the WeChat credentials of former “one-time” promotional-course purchasers who did not continue their enrollments. CW-6 and the other tutors took screenshots of these sham transactions and sent them to the current “one-time” customers, claiming falsely that there “were only a few spots left” in the given course, hoping to induce more demand. Moreover, to “liven up the atmosphere” among customers, CW-6 and the other tutors routinely “brushed” course reviews in the WeChat groups, at GSX’s direction.

139. CW-6 did not have any teaching credentials. She worked at GSX while on summer recess from graduate school. Despite having no formal training in high school education, CW-6 “received four days’ training in total” when she started the job, and thereafter received no formal guidance. GSX provided CW-6 and the other tutors with written materials to send to potential customers when seeking sales. The materials “included an introduction to GSX and the profiles of GSX’s best-qualified and most well-known instructors and tutors,” and

guaranteed to potential customers that all GSX instructors and tutors were similarly qualified. Whereas all of the tutors advertised in these written materials held advanced degrees or attended well-known universities, neither CW-5 nor any of the approximately 40 other tutors with whom she worked on her team daily had such credentials.

g. CW-7

140. Confidential Witness 7 (CW-7”), a former GSX employee, worked as an “Account Manager” for the VIE in Changsha, from August 15, 2016 through March 31, 2019. In this role, CW-7 was responsible for recruiting instructors and tutors across all of GSX’s brands. CW-7 has first-hand knowledge of the actual qualifications of GSX’s instructors and tutors because she was responsible for recruiting, hiring, and retaining them. She reported to the General Manager of the VIE’s Changsha branch.

141. As CW-7 explains, “academic degrees or work experience” were “not the most important” qualifications for hire. Successful candidates often had inferior credentials and less experience than unsuccessful candidates, but were selected for their charisma and photogenic features.

142. As part of her job, CW-7 also considered applications from then-current GSX instructors and tutors who were seeking to move to another GSX brand. GSX instructed CW-7 to weigh as “important factors” these applicants’ “previous sales records and the rates at which their students renewed purchases.”

143. According to CW-7, GSX’s most “popular” instructors paid GSX a fee ranging between ¥10,000 and ¥200,000 to help the instructors “with marketing and sales, client management, and course design.”