

CHAPTER 6

The Encouragement of File Sharing Behaviours Through Technology and Social Media: Impacts on Student Cheating Behaviours and Academic Piracy

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Instances of student cheating can include the sharing and trading of assessment and course content by current and former students. Through peer-to-peer file sharing some of this work can end up presented as the work or answers of others by downloading the material and ultimately being submitted for grading. These activities are just some that can be considered as contract cheating behaviours (Bretag et al., 2019). After identifying some materials and their file sharing sources during grading, I took the opportunity to highlight that instances of students uploading and downloading academic content were an area of concern at a plagiarism conference in 2014 (Rogerson, 2014). During the conference I described the concept of file sharing as occurring when academic lecture materials, notes,

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assessment tasks, answers, and responses are shared, swapped, and traded over internet-based sites in fee, free, or barter (credit/exchange) arrangements (Rogerson, 2014; Rogerson & Bassanta, 2016). File sharing sites housing educational materials can also be known as "crowd sourcing sites, study aid sites and peer-to-peer platforms" (Lancaster & Cotarlan, 2021, p. 2) and have extended their range of materials to include e-books (Lee et al., 2019).

This chapter continues the discussion of student file sharing behaviours and their relationships to contract cheating and academic piracy when file sharing is facilitated through technology. I expand the discussion about the confusion that continues to exist for students when file sharing or sharing of content and materials appears to be acceptable behaviour or the norm in society (e.g., via social media). However, the sharing and trading of materials, content and answers are not considered a norm or permissible in all educational contexts (Rogerson & Bassanta, 2016). Sharing of materials can facilitate collusion, contribute to contract cheating and other breaches of academic integrity, as well as undermine copyright and acknowledgement practice (Dixon & George, 2021; Lancaster & Cotarlan, 2021; Rogerson & Bassanta, 2016). This chapter goes on to discuss the implications of file sharing behaviours beyond higher education, considering whether we as educators are sufficiently preparing students for organisational life where the sharing of organisational knowledge is not acceptable for proprietary, commercial confidentiality, or privacy reasons.

FILE SHARING AND ACADEMIC INTEGRITY

Encouragement of file sharing behaviours can occur on several fronts. Some are legitimate such as educators setting collaborative assessment tasks and students using social media to facilitate group work (e.g., Khan et al., 2016) and where it is recognised as a supportive communication mechanism to facilitate interactions with fellow students and teachers (Bretag et al., 2019). Social media platforms can also be incorporated to form part of the assessment task (e.g., Hull & Dodd, 2017). However, there is a darker side to file sharing where students are encouraged to upload educational content for profit, credit, or benefit regardless of whether or not the student holds the copyright or intellectual property ownership in the materials being shared (Dixon & George, 2021; Lancaster & Cotarlan, 2021; Rogerson & Bassanta, 2016). Sharing sites operating in this manner are exploiting the 'sharing economy' (Richardson, 2015),

promoting themselves as providing help and assistance when in fact these sites are facilitating contract cheating (Lancaster & Cotarlan, 2021).

In examining the concept of student academic file sharing with Giselle Bassanta in a chapter titled 'Peer-to-Peer File Sharing and Academic Integrity in the Internet Age' in the Handbook of Academic Integrity (Bretag, 2016), we noted that the "lines are blurring between what is and is not appropriate to share, inform, re-use, trade, swap, or sell in an academic context" (Rogerson & Bassanta, 2016, p. 275). If anything, measures of appropriateness have become even blurrier with software providers such as Apple® and Microsoft® providing prompts in programs and applications that encourage users to 'copy, paste, share' when they hover over words and phrases. Although the software providers advertise that the functionality is designed to facilitate transferring of material between personal devices, this type of language tacitly legitimises sharing behaviour as something that is a normal practice. Further tacit endorsement is established when institutions provide students with free user licences to programs provided by these companies and students use computers and handheld devices for study and assessment.

SOCIAL ASPECTS OF SHARING

The global COVID-19 pandemic has increased and accelerated the use of technology in educational contexts and shifted educational activities from the campus and classroom to home and computer-mediated social spaces (Eaton, 2020). The social connectedness students usually achieve by coming to campus also assists with engaging in institutional resources and services to support their learning (Won et al., 2021). When these interactions are missing, however, students must rely on other methods to connect. As students turn to social media to replace physical social connectedness, they may also reach out for help, or seek interactions that can facilitate collaborative learning, and the transfer of resources (Ansari & Khan, 2020). When coupled with social media platforms that promote content based on search word algorithms, the sites seeking to profit from hosting file sharing communities merely need to promote their services through a social media platform to reach new potential contributors and users, therefore extending their ethically questionable practices.

This is where the key difference is in the academic integrity space. Sharing sites masquerading as sharing centres are designed to profit owners, who employ 'aggressive marketing practices' (White, 2020). Students

sharing information (and in many cases materials where they do not own the copyright) are doing so to gain profit or credit to spend, barter, or exchange to gain information, and in the end seeking an unfair advantage over fellow students. Students are not necessarily aware or educated in how to distinguish between for profit versus sanctioned sharing or genuine support sites promoted by their educational institution. Using the language of help and support adds a notion of legitimacy to the operation of sharing sites whilst they seek to undermine the very operations they are trying to imitate (Lancaster & Cotarlan, 2021; Rogerson & Bassanta, 2016).

STUDENT HELP-SEEKING BEHAVIOURS AND SOCIAL MEDIA

The help-seeking literature provides a useful insight into the motivations that underpin student help-seeking behaviours. Instrumental help-seeking behaviours indicate that a student is seeking help to reduce the subsequent need for assistance, for example not needing explanation or clarification. In comparison, executive help-seeking behaviours (also referred to as expedient help-seeking behaviours) refer to students seeking the answers to problems as a way of avoiding doing the work themselves (Bailey & Withers, 2018; Karabenick, 2004; Nelson-le Gall, 1985). Therefore, social media platforms provide a way to connect the help-seeking and helpgiving through facilitating connections via technology. Some studies prior to the COVID-19 pandemic examined how students used social media for peer-to-peer knowledge sharing purposes (Asterhan & Bouton, 2017), how Twitter® was used to improve learning experiences (Hull & Dodd, 2017), or how instant messaging assisted students to clarify ambiguities while establishing social bonding (Nkhoma et al., 2018). However, even prior to the pandemic other studies had already established the link between deviant social media behaviour and breaches of academic integrity (Amigud & Lancaster, 2019) and collective cyber-cheating behaviours (Parks et al., 2018).

While the notion of 'helping' others may contribute to students participating in unauthorised or illegal file sharing activities, there is also the issue of helping as a potential neutralisation factor. Neutralisation techniques are a form of deviant consumer behaviour where individuals excuse or justify their actions to alleviate their guilt associated with a specific action which would breach societal norms and the norms they usually espouse (Harris & Daunt, 2011). Deviant behaviours are neutralised through techniques such as denying responsibility by placing the blame

for the action on others, denying that there is victim associated with the action, and placing the demands of social groups and associations ahead of society at large (Sykes & Matza, 1957). In a study of e-book piracy, it was noted how individuals who use neutralisation techniques are "more inclined to blur their moral boundaries" to justify their actions to use the internet for "free download, uploading, creating or sharing of electronic books" (Lee et al., 2019, p. 302). Through the use of neutralisation techniques "feelings of guilt or shame from participation in digital piracy" are removed (Lee et al., 2019, p. 302). It could be that students' notions of helping others, or responding to requests for assistance over social media platforms, overcome their sense of judging whether sharing material that they do not own is wrong or has the potential to be misused to breach the policies and principles associated with academic integrity.

TECHNOLOGY, SOCIAL MEDIA, AND FILE SHARING

The internet and social media platforms have accelerated the access to and accessibility of content but educating students about what is and is not appropriate to share has not kept pace with the breadth, extent, and growth of sharing facilitated by technology. The COVID-19 pandemic has driven education to rely on technology to take the place of in-person, on campus delivery of lectures, workshops, practicums, labs, or tutorials limiting opportunities for students to interact in the same physical location (Eaton, 2020).

However, social media platforms continue to deliver mechanisms for students to connect and stay connected, while on the flip side providing greater reach for sharing and cheating platforms and behaviours. The rapid transition to remote learning took place without the time for planning or consideration of the potential impact on student sharing behaviours or intentions. As indicated by articles issued over 2020 and 2021, sharing behaviours have increased, leading to academic integrity breaches of cheating and collusion (e.g., Comas-Forgas et al., 2021; Eaton, 2020; Lancaster & Cotarlan, 2021).

The internet-based sites encouraging students to share are appealing to them directly, or through social media to 'help' others while helping themselves. The use of language and persuasive rhetoric designed to attract and encourage engagement (Rowland et al., 2018) does not highlight the risks of participating in sharing behaviours of this nature, with the caveats and disclaimers hidden in fine print or terms and conditions (Dixon

& George, 2020). Inappropriate or unsanctioned file sharing undermines the principles of academic integrity and in some cases breaks the law in jurisdictions where copyright provisions and intellectual property rights are upheld (Rogerson & Bassanta, 2016). If we are encouraging students to collaborate in some classes while trying to promote that students do not inappropriately share content they may have written up as notes or submitted for assessment, students can be left confused or conflicted as to what they should and should not do.

FILE SHARING AS ACADEMIC PIRACY

Piracy of media (e.g., music, movies, and images) has been identified as an issue with students (and others) with the inappropriate sharing or illegal use of intellectual property and sharing of content which has been described as 'digital piracy' (Jackman & Lorde, 2014). This type of sharing and use ignores the copyright holders' rights to income and royalties for creative content. The use of pirated content even for individual entertainment purposes is for personal gain for the user in access to content without paying a fee, or via a greatly reduced rate compared to a commercial and legal purchase (Tyrowicz et al., 2020). Although studies demonstrate that the presence of legal means of entertainment downloads reduces the instances of pirated media usage through relatively affordable subscription services such as Netflix® (Nhan et al., 2020), the question of cost was shown to influence the decision to access and use pirated content regardless of the legal implications of partaking in the activity (Jackman & Lorde, 2014; Lee et al., 2019). File sharing sites provide options to students to barter for content thereby negating the cost issue through uploading content to earn credit to download other content, while providing mechanisms for payment by piece or subscription (Dixon & George, 2021; Rogerson & Bassanta, 2016).

For those hosting the sites and sharing there is also the potential for further financial gain through revenue from advertising placed or promoted through the internet-based sites. This is no different from the approach of paraphrasing tool sites, which promote free but not necessarily quality services (Rogerson & McCarthy, 2017). Where file sharing sites are hosting, providing, bartering, or exchanging academic content not owned by an individual, it becomes another form of digital piracy, but more correctly academic piracy.

The peer-to-peer sharing sites, and those using them, will argue for the right of a student to share notes and answers to assessment tasks as it is their own copyright. However, the fact is that much of the content shared over the file sharing sites is the original work of an individual academic or educational institution. In addition, much of the content being uploaded to earn credit is already available to students for free via their institutional repositories. Reuse or exploitation of this work without permission for personal gain equates to academic piracy. Students do not hold the copyright in materials such as assessment or examination questions, exemplars, sample papers, course outlines, and lecture slides, yet file sharing sites accept this content without question and hold it behind membership paywalls. In trying to attract students to use the sites, the materials can be identified through subject and institutional searches over the internet (Dixon & George, 2021). Then begins the task of lodging Digital Millennium Copyright Act (DMCA) take-down notices (DMCA, n.d.) to have content removed. Unfortunately, the time to identify and then enact these take-down requests means that the content is available for access during assessment periods, which can be used inappropriately by students.

IMPLICATIONS FOR FUTURE PRACTICE

From an educational perspective academia needs to determine better ways to ensure that intellectual property of academics and the institution are better protected. This will mean cultivating and educating individuals about ways to guard content delivered and accessible online to make it less attractive as a target for sharing (Petrescu et al., 2018). This may include taking additional steps to watermark, add logos, disclaimers, or other commentary to make it more difficult for students to share content downloaded from the institutional learning platforms or websites (Sheridan & Rogerson, 2020). From a student perspective, students need to be educated about appropriate sharing versus inappropriate sharing just as we seek to enlighten students to the consequences of breaching academic and educational integrity.

Leveraging the socialisation of sharing practices to undermine the frameworks of appropriate use and authorial acknowledgement of the reuse of materials have implications far beyond education. While students bring their societal and educational norms into their learning experiences, and have those norms shaped and sometimes reinforced throughout their studies, they can equally retain those norms when transitioning to work

and environments outside of education (Guerrero-Dib et al., 2020). Herein lies the danger that students are not necessarily cognisant or remaining aware of what is and is not appropriate to share and this area warrants further investigation.

There is a lack of awareness of what happens when data, intellectual property, or even ideas are shared through habit (such as norms established through social media usage) rather than acknowledging that organisational related information is proprietary information and therefore not shared or disclosed at the whim of an individual. Specific non-disclosure agreements may highlight to individuals that certain sets of data will place an organisation at risk if shared. However, the general requirements of confidentiality provisions that form part of employment contracts (specifying that information belongs to the organisation and is not to be shared without specific permission) are lesser known and more at risk of being breached. This risk is heightened where individuals rely on their previous experiences where they consider that sharing is considered a social and behavioural norm.

Therefore, what applies in a social setting does not necessarily translate to an educational or professional setting. Studies such as Guerrero-Dib et al.'s (2020) demonstrate that there is a link between breaches of academic integrity and future workplace ethical behaviour, although this study was confined to examining this phenomenon in relation to cheating, copying, falsification, the use of unauthorised support, and plagiarising or paraphrasing without the use of citations. The issue of inappropriate sharing of materials or use of shared materials was not incorporated into the study but would be of interest and use to both educators and organisations.

There are increasing calls that higher education institutions should better prepare individuals for their working lives beyond university (e.g., the 2020 Australian legislation around the Jobs Ready Graduate Package [https://www.dese.gov.au/job-ready/improving-higher-education-students]). Seeking to uphold academic standards through education about appropriate sharing behaviours is an urgent situation to be addressed particularly through educative approaches to managing academic integrity issues. Institutions also need to ensure that file sharing contexts of academic integrity breaches are covered in policies and procedures. The misappropriation of content that is not owned or authored by a student for sharing and/or personal gain is something that needs to be classified for

what it is—academic piracy and couched on those terms to emphasise the inappropriate and illegal aspects of the behaviour.

FUTURE RESEARCH

What is not clear is the impact that social media platforms and technology providers that openly encourage sharing behaviours with aspects of personal life have on students' intentions to share materials related to academic courses of study. This plays upon sharing as being a norm. Alarmingly, technology providers such as Apple® and social media platforms such as WhatsApp, Instagram, and Snapchat encourage sharing behaviours between individuals. There are no caveats or warnings about the risks of sharing certain materials or prompting a question whether the individual sharing content has the legal right to do so.

Consequently, future research looking at peer-to-peer file sharing in the education sphere should consider the copyright question (where this applies in relevant jurisdictions) and as the socialisation of sharing, and more particularly how file sharing as a normal practice is misleading in educational and professional contexts. This may be more difficult for students to understand where their country or jurisdiction does not have or uphold copyright provisions. Studies into the type and classification of file sharing as academic piracy may have a greater impact on developing an awareness and countering the practice. The success and reduction of piracy may provide some insight into how we can get students to understand and accept the inappropriateness of sharing and using content that they do not own. We also need a greater understanding of what materials are being shared, when decisions to share take place, and whether neutralisation notions such as 'helping others' contribute to an intention to participate in file sharing and academic piracy. Other studies could examine the effectiveness of discussions and assessment tasks that consider and demonstrate what is or is not appropriate to share.

Conclusion

The failure to properly educate students on appropriate and ethical sharing behaviours in educational contexts contributes to instances of academic misconduct and breaches of academic integrity through contract cheating. While peer interactions can benefit educational outcomes, they can also contribute to cases of collusion when the boundaries of support

and assistance are not clear. The implications of unauthorised and inappropriate file sharing also carry broader risks to organisational knowledge management, privacy provisions, and the protection of intellectual property as demonstrated in cases of media (digital) piracy. This is a societal risk beyond the confines of academic and educational environments. The risk to organisational information loss and competitive advantage is real, just as the risk of file sharing in an academic environment diminishes the value placed on knowledge, intellectual property, and originality of thought and academic achievement. As noted in 2016, the imperative remains that we need to openly discuss and confront the issue and implications of file sharing with students while developing their capacity for discernment and judgement on what is and is not appropriate to share (Rogerson & Bassanta, 2016).

REFERENCES

- Amigud, A., & Lancaster, T. (2019). 246 reasons to cheat: An analysis of students' reasons for seeking to outsource academic work. *Computers & Education*, 134, 98–107. https://doi.org/10.1016/j.compedu.2019.01.017
- Ansari, J. A. N., & Khan, N. A. (2020). Exploring the role of social media in collaborative learning the new domain of learning. *Smart Learning Environments*, 7(1), 1–16. https://doi.org/10.1186/s40561-020-00118-7
- Asterhan, C. S. C., & Bouton, E. (2017). Teenage peer-to-peer knowledge sharing through social network sites in secondary schools. *Computers & Education*, 110, 16–34. https://doi.org/10.1016/j.compedu.2017.03.007
- Bailey, C., & Withers, J. (2018). What can screen capture reveal about students' use of software tools when undertaking a paraphrasing task? *Journal of Academic Writing*, 8(2), 176–190. https://doi.org/10.18552/joaw.v8i2.456
- Bretag, T. (2016). Handbook of academic integrity. Springer. https://doi.org/10.1007/978-981-287-079-7
- Bretag, T., Harper, R., Burton, M., Ellis, C., Newton, P., Rozenberg, P., Saddiqui, S., & van Haeringen, K. (2019). Contract cheating: A survey of Australian university students. *Studies in Higher Education*, 44(11), 1837–1856. https://doi.org/10.1080/03075079.2018.1462788
- Comas-Forgas, R., Lancaster, T., Calvo-Sastre, A., & Sureda-Negre, J. (2021). Exam cheating and academic integrity breaches during the COVID-19 pandemic: An analysis of internet search activity in Spain. *Heliyon*, 7(10), e08233, 1–8. https://doi.org/10.1016/j.heliyon.2021.e08233.
- Dixon, Z., & George, K. (2021). Monitoring uncharted communities of crowd-sourced plagiarism. *Journal of Academic Ethics*, 19(2), 291–301. https://doi.org/10.1007/s10805-020-09381-2

- DMCA. (n.d.). What is a DMCA takedown? https://www.dmca.com/FAQ/What-is-a-DMCA-Takedown
- Eaton, S. E. (2020). Academic integrity during COVID-19: Reflections from the University of Calgary. *International Studies in Educational Administration*, 48(1), 80–85. http://hdl.handle.net/1880/112293
- Guerrero-Dib, J. G., Portales, L., & Heredia-Escorza, Y. (2020). Impact of academic integrity on workplace ethical behaviour. *International Journal for Educational Integrity*, 16(1), 1–18. https://doi.org/10.1007/s40979-020-0051-3
- Harris, L. C., & Daunt, K. L. (2011). Deviant customer behaviour: A study of techniques of neutralisation. *Journal of Marketing Management*, 27(7–8), 834–853. https://doi.org/10.1080/0267257X.2010.498149
- Hull, K., & Dodd, J. E. (2017). Faculty use of Twitter in higher education teaching. *Journal of Applied Research in Higher Education*, 9(1), 91–104. https://doi.org/10.1108/JARHE-05-2015-0038
- Jackman, M., & Lorde, T. (2014). Why buy when we can pirate? The role of intentions and willingness to pay in predicting piracy behavior. *International Journal of Social Economics*, 41(9), 801–819. https://doi.org/10.1108/ IJSE-04-2013-0104
- Karabenick, S. A. (2004). Perceived achievement goal structure and college student help seeking. *Journal of Educational Psychology*, 96(3), 569–581. https://doi.org/10.1037/0022-0663.96.3.569
- Khan, T., Kend, M., & Robertson, S. (2016). Use of social media by university accounting students and its impact on learning outcomes. *Accounting Education*, 25(6), 534–567. https://doi.org/10.1080/0963928 4.2016.1230880
- Lancaster, T., & Cotarlan, C. (2021). Contract cheating by STEM students through a file sharing website: A Covid-19 pandemic perspective. *International Journal for Educational Integrity*, 17, 1–16. https://doi.org/10.1007/s40979-021-00070-0
- Lee, B., Fenoff, R., & Paek, S. Y. (2019). Correlates of participation in e-book piracy on campus. *The Journal of Academic Librarianship*, 45(3), 299–304. https://doi.org/10.1016/j.acalib.2019.04.002
- Nelson-le Gall, S. A. (1985). Motive–outcome matching and outcome foresee-ability: Effects on attribution of intentionality and moral judgments. Developmental Psychology, 21(2), 332–337. https://doi.org/10.1037/0012-1649.21.2.332
- Nhan, J., Bowen, K., & Bartula, A. (2020). A comparison of a public and private university of the effects of low-cost streaming services and income on movie piracy. *Technology in Society*, 60, 101213. https://doi.org/10.1016/j.techsoc.2019.101213

- Nkhoma, C. A., Thomas, S., Mathews Zanda, N., Sriratanaviriyakul, N., Trang Huyen, T., & Vo, H. X. (2018). Measuring the impact of out-of-class communication through instant messaging. *Education & Training*, 60(4), 318–334. https://doi.org/10.1108/ET-12-2017-0196
- Parks, R. F., Lowry, P. B., Wigand, R. T., Agarwal, N., & Williams, T. L. (2018). Why students engage in cyber-cheating through a collective movement: A case of deviance and collusion. *Computers & Education*, 125, 308–326. https://doi.org/10.1016/j.compedu.2018.04.003
- Petrescu, M., Gironda, J. T., & Korgaonkar, P. K. (2018). Online piracy in the context of routine activities and subjective norms. *Journal of Marketing Management*, 34(3–4), 314–346. https://doi.org/10.1080/0267257X. 2018.1452278
- Richardson, L. (2015). Performing the sharing economy. *Geoforum*, 67, 121–129. https://doi.org/10.1016/j.geoforum.2015.11.004
- Rogerson, A. M. (2014, June 16–18). Detecting the work of essay mills and file swapping sites: Some clues they leave behind [Conference presentation]. In 6th International Integrity and Plagiarism Conference, Newcastle-on-Tyne, pp. 1–9. https://doi.org/10.1007/s40979-017-0021-6
- Rogerson, A. M., & Bassanta, G. (2016). Peer-to-peer file sharing and academic integrity in the Internet age. In T. Bretag (Ed.), *Handbook of academic integrity* (pp. 273–285). Springer. https://doi.org/10.1007/978-981-287-098-8_55
- Rogerson, A. M., & McCarthy, G. (2017). Using internet based paraphrasing tools: Original work, patchwriting or facilitated plagiarism? *International Journal for Educational Integrity*, 13(1), 1–15. https://doi.org/10.1007/s40979-016-0013-y
- Rowland, S., Slade, C., Wong, K.-S., & Whiting, B. (2018). 'Just turn to us': The persuasive features of contract cheating websites. *Assessment & Evaluation in Higher Education*, 43(4), 652–665. https://doi.org/10.1080/02602938.2017.1391948
- Sheridan, L., & Rogerson, A. M. (2020, March 6–8). Protecting our own copyright: Combating the piracy of academic content by students [Paper presentation]. In *International Center for Academic Integrity (ICAI) Conference*, Portland, OR, USA.
- Sykes, G. M., & Matza, D. (1957). Techniques of neutralization: A theory of delinquency. *American Sociological Review*, 22(6), 664–670. https://doi.org/10.2307/2089195
- Tyrowicz, J., Krawczyk, M., & Hardy, W. (2020). Friends or foes? A meta-analysis of the relationship between "online piracy" and the sales of cultural goods. *Information Economics and Policy*, 53, 100879. https://doi.org/10.1016/j.infoecopol.2020.100879

- White, A. (2020, March 23). Amanda White on education for and detection of contract cheating in virus times. Campus Morning Mail. https://campusmorningmail.com.au/news/education-forand-detection-of-contract-cheating-in-theage-of-covid-19/
- Won, S., Hensley, L. C., & Wolters, C. A. (2021). Brief research report: Sense of belonging and academic help-seeking as self-regulated learning. *The Journal of Experimental Education*, 89(1), 112–124. https://doi.org/10.1080/0022097 3.2019.1703095