

Course Name: Technical Communication for Engineers

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Week- 20

Lecture 20- What is Plagiarism 02

Hello everyone and welcome to this last discussion under this technical communication for engineers course. And this is part 2 of Plagiarism. We have already discussed in part 1 about what is Plagiarism and different types of Plagiarism. So, in the part 1, we have discussed the common types of Plagiarism and then there were subclasses. Now we are going to discuss the ten Plagiarism. So, there are 10 types of plagiarism is there.

So, this is 10 types of plagiarism in research. So, if we start from the you know like first one the secondary source, then invalid source, duplication and paraphrasing then repetition research, replication, then misleading attribution unethical collaboration and the verbatim plagiarism, very dangerous. And then last one is the complete plagiarism. You have just copied everything. And I have seen such examples in my career in IIT Roorkee that sometimes the students, dissertation students especially, they just copy almost 100% from some other dissertation of maybe some other institute or the same institute. And many times these people are not caught in earlier times. But now because each submission whether say M.Tech, M.Sc. dissertation or B.Tech dissertation or PhD thesis or manuscript every such documents have to go through this plagiarism check. And like here we are having internet software turnitin and there are other softwares also which can be employed to do this thing. So, first all 10 types we will see very briefly here. So, first one is the secondary sources that where you are taking data or idea or some figure or thing and you are giving a sort of inaccurate citation.

So, secondary source of plagiarism happens when a researcher uses a secondary source like a meta study but only cites the primary sources contained within the secondary one. So, this will fall under this category. Secondary type of source or secondary source plagiarism not only fails to attribute the work of authors or others of the secondary sources but also provide a false sense of amount of review that went into the research. So, basically someone else work if you are trying to show your own, you are creating problem for yourself. Another type of among those 10 types of not common but other 10 types of plagiarism is the invalid source or invalid sources.

So, basically again misleading citation, fabrication and falsification. Again if

accidentally it is done, there is no excuse. That means you have misled the world about the citation or the work of others. If you have done this fabrication falsification, again a problem. So, invalid source attribution occurs when researchers reference either an incorrect or non-existent source. Now in that lecture or discussion when we had on references, at that time I mentioned that if we are taking some idea, some source, some information from a portal and after 4-5 years someone found that link does not work. And therefore, as mentioned in that discussion that whenever you are taking some material or thing from internet and putting in the list of references that IP address or HTTP address then you must mention in the end the access date on which date you have accessed. So, you are then safe. If you do not mention then after few years or few months or few days if that portal from where you have taken then you fall in this invalid sources of plagiarism. So, one has to be very careful just put the date on which you have accessed that portal or website, no problem. And so, this may be the result of a sloppy research, may be the intended thing is there or rather than you know intend or deceive. But I would say that carelessness is most important here that you are trying to use someone's work but very careless about putting the citation, giving the citation and adding in the list of references. Third one is the duplication which also falls in this category of self-plagiarism or reuse. So, as discussed in the previous lecture that if it is my own work and I am using in my next publication, I have to provide that citation to that and full details in the list of references. Though in case of citation which becomes a very important aspect of research domain nowadays, it is considered as a self-citation. But at least it will not come in the category of plagiarism. So, you are avoiding a fraud. Does not matter it is self-cited and there are softwares which will filter out self-cited work. So, that is not an issue. Self-citation of our own work, previous work is not a fraud, is not a crime.

But duplication or without giving the citation is a bad thing. Why? Because I might have published my previous paper in some journal and now I am publishing in another journal and not making duplicate of some text or figure and not citing. So, what will happen that basically the citation also affect the impact factor of journals. then the impact factor will reduce again of that the paper in which or the journal in which I have published my previous paper. So therefore, it is always good to give proper citation even if it is my own work published earlier. So, ethics of duplication is highly debated and often depends upon the content copied. So, some people will say no, it is my own work. Why I should give citation to myself? If I do then I fall in this self-citation. But self-citation is not a fraud whereas duplication is a fraud. I give the example that two papers of suppose myself, one published in X journal, one published in another type of journal and both have been published by different publishers. So, the impact factor of journal will affect in long term. Fourth type among these 10 types of plagiarism is the paraphrasing. That is an intellectual theft. Paraphrasing is taking another person's writing and changing the words maybe using synonyms, making it appears as an own idea. Even a place of research is

original when in truth, it came from an unsighted outside source.

So, unsighted outside source that will fall in paraphrasing plagiarism. So, paraphrasing ranges from simple rephrasing to completely rewriting content while maintaining the original idea or concept. So, even if you have taken somebody's idea, you have restructured, rephrased your sentences, paragraph. But if idea is the same then you fall in this paraphrasing position. Now, fifth type of this plagiarism is repetitive research that is also a kind of self-plagiarism or reuse. So, repetitive research plagiarism is the repeating of the data or text from a similar study with a similar methodology in a new study without proper attributions. So, suppose a person has done certain research, certain idea in a part of say one part of Himalaya. Now after some time, the same idea everything is same except the area has changed, so then another part. But if the citation has been given then this repeated research it will not come. You know many times it is not possible if I am thinking to cover a large area then it is not possible to do it only in one study.

It may require maybe many studies, successive studies. So, that may fall under this repetitive research but if proper citation and references is provided then this issue will not come. So, as I have just mentioned that this repeated research happens when studies on related topics are repeated with similar results but the earlier research is not cited properly. So, sometimes you know I have seen some dissertations like that you know if I give the examples from earth science background, geology of you know north of this Indo-Gangetic plain, geology of south of Indo-Gangetic plain, geology of east of Indo-Gangetic plain and likewise. This is just example. So, that is coming under this repeated research but if proper citation has been given then one does not fall in this category. Now, sixth is the replication. One is the duplication, another one is the replication that they basically author submission violation also. So, replication is the submission of a paper to multiple publications resulting in the same manuscript being published more than once.

And this is another problem. Sometimes what happens researchers are in hurry to publish. So, they might submit the same manuscript to 2-3 journals. And whichever will accept first, they will do that thing. But in meantime, if they forget and another journal has also accepted and published then you fall in this category of replication. And this is also a violation because you have to certify, you have to certify, you have to give an undertaking that this work has never been published anywhere or has not been submitted anywhere.

But later on it is found that you have already you know submitted to 2 journals and both have published then you will fall in this one. If I have got a manuscript to submit, I will submit to one journal, wait for the results, reviewers comments and if say suppose they reject then I may improve on and again submit to another journal. That is the best thing

rather than parallelly submitting to 2-3 journals and falling in this replication places. So, this can also be an ethical infraction particularly when a researcher claims that a paper is new when it has been published elsewhere. Because when we claim means we are giving an undertaking, a copyright transfer to a publisher that this work has not been published elsewhere anywhere whereas you have already published.

So, definitely it is a violation. Seventh under these 10 types of plagiarism is misleading attributions that is the inaccurate authorship you are giving. So, inaccurately you are citing the authors. Suppose there are 3 authors you have not written at all.

You have just written the surname of the first author in the citation and same mistake you have committed in the list of references. So, this will fall in this category of misleading attributions. So, it is an inaccurate or insufficient list of authors who contributed to a manuscript and this happens when author are denied credit for partial or significant contribution. This is another problem which is a very-2 common problem in the research domain. Suppose there are 3-4 people have worked on that and while submitting a manuscript, you forget maybe deliberately or unintentionally, you forget to include all those who have contributed towards that work. You include only those who are present in front of you rather than those who have done some earlier contribution in the study. So, that will also fall under this category misleading. This is what happens when authors are denied credit for partial or significant contribution made to the study. or to the opposite when authors are cited in a paper although no contributions were made.

So, unnecessary citing is also misleading but in that way wrongly citing is definitely will fall under this plagiarism. Now eighth is here is the unethical collaborations. People claim unethical collaborations may happen when people who are working together violate a code of conduct. Another problem comes under this collaboration.

Suppose somebody is working in a group. Now whose name will come first in the manuscript? That is another problem. So, you know the solution which I have or the procedure which I have followed with my researchers or research students and my colleagues is that whoever will bring the idea and work on that idea whether he is a very young researcher or anybody, he would get the first name as first author. And remaining people as per their contributions, they will get their names in the sequence. But most of the credit will go to the person who has brought the idea, who has worked on that and written the manuscript also. So, then we can definitely avoid these unethical collaborations.

Also, it is important that if before such studies are done or conducted, and manuscript are prepared for publications or anything. If we are working in a group then we can discuss

this point and can fix you know the sequence of authors. So, later on there will not be any complaint from any quarter or any individual who may say that I worked more but I did not get the credit. So, sort of a pre-agreement can also work. Now using written work, outcomes and ideas that are result of collaboration without citing the collaborative nature of the study and participants involved is unethical.

This is happening in many collaborated project nationally or internationally. So, suppose in some big project 3-4 universities or institutes, IITs are involved. Now the principal investigator, he gets the inputs from all over the people who were the collaborators in that project but publishes as his own without including their names or without giving proper citation or without giving proper credit. So, that will also fall under this unethical collaboration. So, using as we know in plagiarism overall others work without proper attribution is plagiarism. So, all these types are also will fall in the plagiarism case. Though the degree is little different as direct copying or direct plagiarism and others. Now 9th is the verbatim place. It is a copy and paste and it is completely considered as intellectual theft. You have not given any credit, you have just copy and paste.

This is the problem because of digital world people are those who develop the content, they face this problem. And so, verbatim plagiarism is the copying of another's word and work without providing proper attribution citation references. Any intentional or quotation marks, this can be in two forms. First is plagiarism may cite the source they borrowed from but no indicate that it is a direct quote. And second is the second type that no attribution to all who has provided that essentially claiming the words of someone else to their own and that is what a very serious thing. And in the legal framework, it is very easy to prove verbatim plagiarism whereas as mentioned that it is very difficult to prove accidental plagiarism. Verbatim plagiarism is easy to prove in the court or in the legal domain. Now the last one is the complete plagiarism which is a complete intellectual theft or stealing. This is really very serious that complete plagiarism in an extreme scenario when a researcher takes a study, a manuscript of other work from another researcher and simply submits it to own name. Let me give you one example from my own experience. I will not name the institution otherwise it goes in a different way. So, I received few years back a PhD thesis from some Indian university and it was in a physical form. So, it was lying for few weeks on my desk. Then one day I thought that let me review now. So, you know first I started after understanding the full title, started going through the abstract and introduction part and then I found that there is no coherency whatsoever among the title, topic, abstract and introduction.

So, again I read and again I did not find any coherency whatsoever. And then I thought that because another you know doubt I got because in the thesis, there were different fonts which have been used at different places. So, I thought that probably this person

must have done this copy and paste. So, I started searching on net the you know paragraph and paragraph after that or sentences. And at the end of this exercise which took about 2 days for me, I found that 100% of that thesis have been you know the text or the material have been copied from various internet sources because it was a complete plagiarism.

So, before I rejected that thesis, I had to take printout of all those original sites from where the candidate has taken the material copied and paste in his thesis. And then I had to directly send the report to the Vice Chancellor that this person has done a complete copying paste, complete plagiarism. And not only this person but the supervisor who has signed his thesis should be severely punished. And later on after some time, I received a phone call from the office of vice-chancellor that I do not know whether exactly it was from the office of vice-chancellor or somebody else because by looking phone number, you never know. And what they said that would you like to withdraw that report which I have said that it is a 100% copy. I said no whatever I wanted to say, I have said it in my covering letter. And the thesis first should be rejected and second the candidate and the supervisors should be punished severely because none of them have done their duty and they are bringing bad name to an institution. If this thesis goes abroad and somebody detect like this, think that what kind of impression, perception they will develop about Indian researcher. Majority of Indian researchers are very serious, very careful about racism. But even a 1% does this thing, it brings a very bad name to the institution or the country, organization. Now very briefly, I touched this point. So, I am going in detail now about how to check. which are the available softwares and so on. So, plagiarism checker is an online software which checks a document for duplicate or plagiarized content. And this checker basically, they scan the internet for other uses of the same phrases, terms or quotes. Now, this is one limitation of these internet-based checkers that they can only check the material or publications or portals which are already on internet.

But if a paper has been published in physical form in some years back in journal, at that time that journal was not online then these plagiarism checker cannot check. So, some issue is there but anyway whatever checks it does, still it is good alarm that before you are trapped in case of plagiarism, you would know that what kind of material is being copied or it looks similar. And the certificate which we put that is called similarity certificate. It does not call plagiarism certificate, it is called similarity certificate. So, the phrases, sentences, idea, how much similarity is there? 100% dissimilar cannot happen.

So, therefore like institutes may allow, a journal may allow a 10 or 15% similarity. So, if that certificate which have been created by these internet based plagiarism checker and mention that it has got only 15% you know similarity then it is accepted. Because there are lot of sentences, lot of things, words, phrases which are very common and the

software will detect which is not a case of plagiarism anyway. So, checkers look for direct quotes and similar wording between your document and other pieces of content only on online. This is the limitation as just discussed with you. The published papers which are in physical form in journals lying in the libraries cannot be checked. But there are many journals which are digitizing their own or doing digitalization of their own previous papers. But they are going in a PDF form. Sometimes, these plagiarism checkers, they cannot check those PDF files either. So, if they have scanned just image then these plagiarism checker software cannot do it. So, quotes cited correctly are not plagiarism. Means if you have given proper citation as said in the first lecture in the beginning that the best practice is give correctly the citation. You will not fall in case of plagiarism. But still it will be detected by plagiarism software detector and similar sentence, paragraph, phrases, etc. will highlight that this is coming from this.

Common word pairings and uses are not considered plagiarism. So, these softwares are becoming smarter and smarter. And many common words and phrases, sentences, they may not come in this similarity index. So, plagiarism checker compares submitted documents with other and highlights the similarities which are part are similar. And this will basically allow to ensure the quotes are cited properly and authors has not been inadvertently influenced too much by other sources. Because each publication basically it is declaration that is a unique work, new work, new innovation.

And if it has been copied from here and there then definitely there will be high similarity index and you will fall in the category of plagiarism. So, if the result is positive through this plagiarism checker then what we need to do? Go back and correct the problematic parts. So, it will highlight and this has to be done. This plagiarism checker has to be done before submission, before dissertation or before PhD thesis submission, this has to be done. And then appropriate correction methods should be adopted to resolve these similarity issues.

If one submit an important document without checking then one is inviting trouble, case of plagiarism and therefore taking this extra step is a critical part of modern day writing and publishing. So, the care must be taken before doing publication or submitting even for publication. Some journals will do their own plagiarism checker. But before even then we must check at our end because suppose they return your manuscript and say that it has got 20 or 25% similarity index then it is bad on you. and your professionalism and unethical also. So, before that one should check at our end and then submit what is the problem. And if similarity index is high, a journal is not allowing say more than 15%, an institute is not allowing more than 15%, no problem. You rephrase, rethink and give proper citation, that is it. So, plagiarism detectors are available online. These are all internet based. Variety of brands are here. And in this, I have tested each plagiarism

checker with the same passage to give you an idea how they work. And I have also included a review of the plagiarism checker by other software also. Now, benefits of using plagiarism checker because we know it is a fraud, so better to avoid. So, that is the best benefit or at top of this, this is the benefit that nobody will ever say that you have done plagiarism or cheating or fraud. So, superior results using a tool like for example, Turnitin from the start eliminates these risks. Second is clarity. Google may return a page for results but not give you the details as you need as part of useful plagiarism checker. And high quality detail matches. Another suggestion which I can give at this stage that if access is available to more than one plagiarism checker, one should go through.

The advantage because each plagiarism checker will not bring the same similarity index. And therefore, if you are having access to more than one plagiarism checker, you must submit your manuscript, thesis, dissertation to that. So, what we are basically trying here that high quality and detail matches which falls under this similarity index. So, when you use a plagiarism checker on content or submit a manuscript for this checker, you get a detailed report which will show the matches found along with the percentage of document which is considered to be duplicate content. So, likewise then of course, it is a peace of mind that you have gone through the plagiarism checker, you have done all corrective measures and now you have reduced the similarity index, brought to the under limit or permissible limit. then you are having peace of mind. No one can ever blame you that you have done the plagiarism. And ultimately this will reduce the stress and anxiety in the researcher. Also, one can take clues from plagiarism checker and can improve the writing also. So, better indirectly forcing you, compelling you to do a better writing. And therefore, by which method or by this approach, you can definitely avoid plagiarism also.

Softwares examples, online based of course, the Turnitin. This plagiarism checker is used by many courses and programs and is available through Brightspace. Grammarly, another one. Grammarly is more focused on grammar but nonetheless, it can also be used. So, better known for writing improvement and proofreading like IIT Roorkee. having Turnitin, IIT Roorkee is also having Grammarly. Grammarly software is very popular among students and also useful for plagiarism detector. WriteCheck is another version of Turnitin which is there. Google, which is accessible to almost all. So, while it is not very effective compared to Turnitin and others but some teachers use a search engine to detect the plagiarism. This works if you copy and paste direct quotes but it is sensitive enough to identify paraphrasing. So, the more powerful in this world of plagiarism checkers are like Turnitin and the second one is Grammarly. And there might be many which is it is not an exhaustive list. So, I cannot claim that I have covered all those softwares whichever I knew and whichever two softwares I am having access at least first two or rather. Google also. So, I have quoted here. This is I am sure from distance you have to be little careful while checking. So, I have provided a zoomed part

of this. This is the similarity index certificate and it says only 7%.

No problem. If it is there, fantastic, it is allowed. See that and it also you know classify from where different sources are there. Similarity by sources. So, internet sources in this example 5%, publications 4%, student papers 5% likewise. So, you get very clearly about the idea. So, if a journal or institute or organisation is allowing say less than 10% similarity index, you can definitely submit your paper and you will not have that kind of problem.

But always it is better to reduce as much as possible to achieve you know ideal is 0 similarity index but it is very-2 hard. As the percentage in the similarity index goes down, the challenge becomes bigger. So, it is an inverse relation kind of thing is here. So finally, as we have started out of these two lectures in first lecture, finally, plagiarism is an act of fraud which involves both stealing someone else's work and lying about it afterward. So, this is a big issue one should always avoid, use these spell checkers for any serious publications or other things. Now we come to another very briefly I will touch the copyright issue also which is becoming again very important because everything nowadays can be checked on net. So, copyright basically refers to the legal right of the owners of intellectual property. and a copyright is the right to copy. So, many times we have to take permission from a publisher that I am using this figure published in this paper in my paper. So, that permission especially it is required for publishing or using someone figures or material in your book So, at that time, copyright also becomes very important. So, copyright also means that original creators of the product and anyone they give authorisation are on the only ones with the exclusive right to reproduce the work. So, for each time you have to take permission if you are using the same figure, same idea, same material elsewhere. So, there are copyright laws, there are experts, legal experts all there. We give creators of original material the exclusive right to further use and duplicate that material for a given amount of time.

So, it is a kind of technology transfer also or copyright transfer. So, that is very-2 important. Now, copyright law protects creators of original material from unauthorized duplication or use. So, if I have created something and if it has been copied by someone and that permission has not been taken from me then that person will fall under this violation of copyright. So, for original work to be protected by copyright law, it has to be the tangible form and it should work. So, like for example in US, the work of creators is protected by copyright law until 70 years after their death. So, one can say that why 70 years so in a very early stage if somebody has created something so for his own life that 70 years considering that he has done that thing at the age of 30 so considered as 100 years fine. So, how this works? Copyright works when someone creates an original or a product that is viewed as original and that required a significant mental activity to create

this product becomes an intellectual property and that must be protected from unauthorized duplication. And if you open a book or journal, you would find that they mention about this copyright. clause also. So, examples of unique creation. For example, computer software, they are copyright protected like many times people go for pirated software.

So, that is the infringement of copyright act. So, computer software, art, poetry, graph, designs, musical, lyrics, compositions, novel, film, original and other intellectual designs, website content, etc. They all fall in this copyright So, one should safeguard and which is so that one is never falls in this illegal act. So, it is legally protect and original creation is the copyright. It is little different than citation or you know plagiarism where you are not giving the proper citation. But here you cannot take just like that. So, you have to take the permission from the original creator. So, this copyright law, a work is considered original if the author created it and from independent thinking and avoid of duplication. And this type of work is also known as the original work of authorship or OWA. Anyone with an original work of authorship automatically has the copyright to the work. So, whenever we are submitting a manuscript to a journal or some other sites, the publisher will ask to transfer your copyright to that journal. So, then in future you cannot claim because you have already transferred the copyright and we sign it. And generally, physically we used to sign, digitally we sign and transfer this copyright to the publisher of the journal. Because otherwise somebody can you know complain and that publisher will go in trouble. So, therefore they always ask for transfer of copyrights. So, one has to be very-2 careful if somebody is better take permission and sometimes permission is given.

If it is not, do not use and that is the best thing. But not all types of work can be copyrighted or will consider under this Copyright Act. So, copyright does not protect ideas, discoveries, concept or theories. And like brand names, logos, slogans, domain names, title also cannot be protected under copyright law. For that, there are other laws. And for an original work to be copyrighted, it has to be tangible form that people should know and they should remain there. And like IPR and you know these patents, they have to be alive for then only one can claim that that is my copyright. But you know like speech, discoveries, musical scores, ideas have to be written down in order to protect it by copyright. And so, whenever you see a film or movie or other things, there also these things, these certificates comes there that copyright certificate. So, if somebody makes duplication of that one, they will fall in this act. So, generally original owners are protected by copyright laws all of their lives. However, this may vary country to country. And like I understand that like in India, you know films in the Hindi films or others, the copyright is only for 30 years for songs and other things. So, it depends on country to country how long that will be tangible. Now these other important things like copyright versus trademarks and patents. So, while copyright law is not an all encompassing, the

other laws such as patent and trademark laws may impose additional sanctions.

And this is altogether a different lot of patents are being filed. And when one filed the patent, it is checked whether similar kind of work or claims have been done or not. If that is there then patent is not awarded. Otherwise, it becomes your own intellectual property and you have to keep it tangible for a long time. And sometimes somebody may buy from you and you transfer the entire ownership and against which one may get some credit, money or whatever. So, these are the other intricacies while publishing or borrowing or using someone's work. So, one has to be very-2 careful. Now like patent covers inventions for limited period of time. This I just mentioned. Not whole life, not all the time but limited period of time as long as you can maintain that tangible form then only it will.

So, patented material include products such as industrial processors, machines, chemical positions, etc. So, finally I am coming and ending this course with a joke. So, the person is telling the lady that plagiarism is such an ugly word. I prefer to say "credit-free externally harvested concept redistribution". So, he is making a more complicated issue here but simply Best thing is if you are taking idea, material, figure, data from anyone else work, please quote, please cite and give proper reference.

One would not fall in the category of plagiarism and this is definitely last one. that what they mean all my facts are wrong. The student is saying to the teacher that what you are saying that my facts are wrong. And then he added that I copied everything straight off the internet. So, how can I be wrong? The internet source is wrong. So, that is also plagiarism. Even if the source is wrong, you have quoted, you will fall again in case of plagiarism. Example from our Indian movies. Ye Dil Deewana. So, how they have avoided Deewana hai ye dil and they have avoided plagiarism. But from research point of view, this is not good. So, with this I end this lecture. I have completed now 20 lectures under this course and I hope you must have enjoyed. And a lot of learning might have happened. You can upgrade later on by yourself and you know avoid plagiarism and always create good content with the sections starting from topic to plagiarism, copyright which we have discussed. So, with this I end this discussion. Thank you very much and all the best for future. Namaskar!