Ladies and gentlemen,

I have two very good reasons for ***not*** wanting to talk about open access or open science today.

- First, these topics are nothing new. Open access and open science have been on the agenda for some time now, and newspapers have been publishing about these subjects for years. It was one of the main issues during the Dutch EU Presidency in 2016, while the NWO (the Netherlands Organisation for Scientific Research) and the VSNU (the Association of Universities in the Netherlands) are dealing with them.

- Second, these topics are HUGE. What is the role of the University of Amsterdam in this regard? And why is the topic relevant here today? Ultimately, the movement towards open access and open science depends on the entire universal system in which we operate. It's as if we are on board a cargo ship that can only change its course very slowly – if it changes course at all.

But I'm going to talk about it anyway. Open access and open science potentially could have an ***enormous impact*** on our future work. While there are major social interests at stake, the consequences are just as great.

The point that I would like to make today is that managing this process will require both a change in organisational culture from us, as well as the protection of our position as a university. We need to feel ***safe*** to be able to change – to change in such a way that quality and independence remain our key academic priorities.

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Ladies and gentlemen,

Open access and open science are important to society. I will briefly outline three reasons why this is the case.

In the first place, systematically creating and providing knowledge to society is a university's primary concern – our public legitimacy. We do so by publishing research and by teaching – by providing our students with an education. In this sense, universities are very different from other institutions. It is what makes a university a 'university'. But creating and passing on knowledge becomes difficult if you are dependent on others – on publishers armed with a massive paywall.

In the second place, making academic results publicly available should lead to better and more accessible research. Many of today's publications are ***mono-disciplinary***. Open Science could perhaps lead to more – and better – ***interdisciplinary*** research. For instance:

combining large data sets can lead to the discovery of new connections. All disciplines are currently engaged in their own methodological debates about statistical and experimental methods, interview techniques, use of big data, and so on. But in order to work together, we must understand and appreciate each other's methods. Fundamental discussions about this are currently being conducted at the University of Amsterdam's Institute of Advanced Studies.

In the third place, open access and open science make research results easier to find and to verify, including research data but also documents and texts, which are increasingly more being digitally unlocked. This must contribute to the quality of – and public confidence in – science in general. This is of growing importance in these times of fake news, alternative facts and – let's just say – charlatans with a website.

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So open access and open science are important to society. The problem is that we are trapped in a system that is difficult to escape. One in which the assessment and appreciation of public research support the revenue model of commercial publishers.

So let's start with them. When you think about it, it's absurd that this revenue model has lasted as long as it has: academics write an article for free and surrender the copyright to the publisher, who then has the article assessed by multiple academics – again for free – to then place it behind a paywall and sell it back to those same academics at exorbitant prices.

It's beyond comprehension, only a fool would fall for it, and yet this is the way we operate. It's also no surprise that publishers are fighting tooth and nail to maintain their position, resisting change with cunning tricks and lengthy contracts. The revenue model is simply sublime. For the publishers, that is – not for the universities, not for research in general, and not for society. Scientific results are unaffordable, even for many scientists. This neither benefits the research community, nor does it serve the social purpose that we assign to science.

Publishers hold us hostage in this system by using ***our own way of working***, by using the way we evaluate research ***ourselves***: the all-important *bibliometrics*, the need to publish in 'high-impact journals', the ranking systems.

This way of working has even more far-reaching consequences. In an ideal world, our curiosity would determine the direction of our research. But our *current* reality does not revolve around what counts, but what can be counted. Too often I see that research is not only driven by curiosity but also influenced by the 'prestigious' journal that it could be published in. We are not completely free. The current system determines not only the course of our careers, but also influences the ***way*** we think, and perhaps even ***what*** we think.

It is an entirely self-reinforcing system – and one that is at odds with everything that research driven by curiosity should be. Science in Transition has been saying this for years. And in 2013 the Dutch universities signed the DORA declaration, which states that the impact of journals must not affect the evaluation of individual researchers. But very little has changed.

Systematic change seems to be only possible with a critical mass behind it. That at last seems to be the case.

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So what lies ahead of us?

In concrete terms: the brute-force approach – known as 'Plan S' – of the EU and major research sponsors. They have demanded that all of the research that they fund is made open access as soon as possible.

All in all, the initiative is a good one. It may disrupt the system, which is certainly needed. But we need to be careful: our quality and independence must be guaranteed.

This requires two things: a completely new method for evaluating our researchers, and protection against the improper exploitation of our free data. I would like to discuss this in more detail.

Firstly, the way we evaluate our researchers. Young, promising researchers have valid concerns when it comes to open access and open science. How are they to make a name for themselves if they cannot publish in a leading journal? What happens with monographs and publications in the 'learned societies'? How can we consult publications in journals that are not open access? Open access and open science came about in order to create a level playing field worldwide, but what does it mean for me if the rest of the world is not participating?

The current university system is built on how things have been done until now, which makes change difficult. As such, the answer should not be sought in the adoption of *other* systems of measurement, such as 'next generation metrics'. The recent Open Science report by the League of European Research Universities was right in saying the following: 'It is easy to say that quality cannot be reduced to mere numerical values. It is much less easy for the academic community to agree what could take their place.'

The answer should therefore be sought within a much broader context. One that encompasses research and education, technology transfer and innovation, leadership and teamwork.

At our university we are focusing on the evaluation of research and education, and on innovation and leadership, and on how collaboration within a team can contribute to this. As such, we are changing our perspective.

That's why I'm so happy with the recent proposals by various academic institutions (such as VSNU, NWO and KNAW) to bring this change about.

The universities will publish a position paper in early 2019. The stance taken by grant providers will remain important, as will how project proposals can be evaluated.

My second point – the second condition for guaranteeing our quality and independence – concerns protection for researchers and the role played by universities. If there's one thing we've learned from the existing publishing model, it's that we need to think about the system as a whole before committing to anything.

Here, I'd like to draw a distinction between 'open access' and 'open science'. Open ***access*** is about material that has already been published. Open ***science*** goes much further, and has the potential to change the world.

The true aim of open science is to actually make *all* data accessible. That means all datasets, all research results, methodologies and potentially even the algorithms on which an analysis is based. Work is underway on national clouds and a European cloud, which are intended to make all of the open data searchable. It is also increasingly expected that publications also supply the data supporting their conclusions.

It sounds great. But it potentially also presents a major threat to science. Who runs and manages the Cloud? And who determines who gets access? And how are our academic values safeguarded?

It is important for us to realise that in this area there are major differences between publications and data. For example, there is copyright on publications, but in principle not on data. Open science therefore does not mean recognition for the person who generated or obtained the research data, often through great effort. Open science also assumes that everyone is allowed to reuse our data sets for research purposes, but also for commercial aims. This is worrying, to say the least.

Take a moment to consider the following. What do you think would happen if a company emerged that scoured the earth for research data, collecting and analysing it, and producing new 'enriched' datasets? The data would no longer be open, but hidden behind a new paywall. Because companies are under no obligation to make their data publicly available.

The writing is on the wall: our rights must be protected in order to be able to meet our obligations as a university with regard to research, teaching and innovation.

Now, ladies and gentlemen, some concluding remarks.

A major change took place at the end of the 18th century when universities were forced to adapt to the proliferation of the printed text, the flow of information and the growing attention for research. As a result of advances in information technology, the scientific world is entering a new phase. The current digital transformation and the accompanying loss of ownership of knowledge and the protection of its academic values, which we now advocate, are of the same magnitude.

With this speech my aim has been to call attention to the need for society to embrace the change, but also to provide the appropriate protections.

The seismic shift we are facing demands decisive action by our own government and by the European Union to preserve the universities as institutions of free thought, and to safeguard quality and independence – not only through funding, but also through legal protections for their work and position. Concrete measures are called for, to help protect the intellectual property of our own work, now and in the future. Only then can we continue to fulfil our three core obligations to society: those of education, research and innovation.

Even if all of the above concerns have been dealt with, we will still need the courage and flexibility to let go of old habits and to embrace new ones. But we can do so, as long as we are willing to free ourselves from the system in which we are currently trapped.

And on that note, allow me to introduce two of our important guests.

Naomi Klein and Louis Andriessen, both of whom are receiving honorary doctorates today. In their work they do not heed the system, but always act on their own convictions, driven by curiosity, creativity and the urge to bring about change.

Looking at our university system through their eyes, we can only conclude that both Naomi and Louis would not remain trapped for long.

Thank you.

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