

### The PhD student and the meeting with science

"A rebirth we all need to go through" (UiT professor, p.c.)



- 1. Enthusiasm, strong intrinsic motivation and a desire for career progression (Guerin et al., 2015)
- 2. Huge personal investment with much at stake (Leonard et al., 2005, Cyranoski et al., 2011)
- 3. High level of role strain, stress, and sense of isolation (Stubb et al., 2011, Grady et al., 2013)

### The PhD student and the challenge of balancing



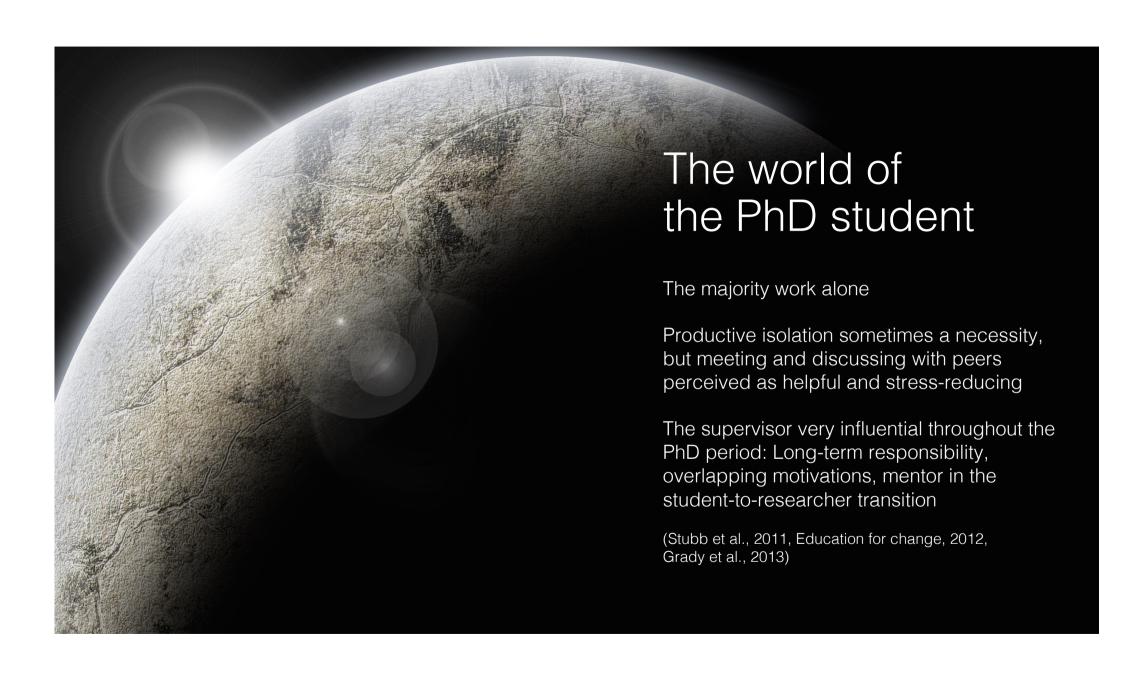
Expectations to do good research Expectations to get maximal credit and be visible in the right circles

#### How to balance strategy and ideals?

Awareness of our two roles and the choices we have to make, as well as the consequences

- the good scientist
- the good academic

(Carter, 2015)



## Purpose of this talk

How can the library best support the PhD students?

Which competences and skills that librarians possess are relevant for the doctoral education?

How can PhD support services contribute to development within the teacher librarian group?

## Outline

The PhD student's experience with library support services, PhD support at UiT, visibility and expectations, the road ahead

## The PhD student and library services

#### Searching for information

The majority rely on recommendations from the supervisor More than half have never sought advice from subject librarians

#### Sharing of knowledge

Around half have never sought advice on OA publishing. One quarter don't know this type of support exists

Around half have never asked assistance to deposit research output in institutional repositories. One third don't know this type of support exists

(Education for Change, 2012)



# Evaluation of research training modules provided by the institution

Not sufficiently advanced, too generic, not available "on demand", difficult to find alternative courses

#### (Elective) library-led training received more positively

Topics of training most widely undertaken: using information portals, finding/using research resources, managing references

Most students value the knowledge, experience and helpfulness of librarians: When they decide to come, they leave happy

(Education for Change, 2012)



## Why the underuse of library services?

"In many cases the students [...] seemed open to receiving assistance from librarians but did not know what—or even if—services were available."

"Librarians who expect teaching faculty to refer doctoral students to liaison librarians may find themselves waiting a long time; very few respondents reported faculty having mentioned seeking assistance from a librarian."

"Doctoral students have unique problems and concerns and are highly skeptical of services that they fear may be irrelevant."

(Fleming-May & Yuro, 2009, p. 215)



# Rethinking the content of library-led research training at UiT

#### The observation

Plagiarism cases and little awareness/use of library resources, scepticism concerning OA

#### The academic library

Multidisciplinary expertise on teaching, research and publishing

#### The challenge

Contribute to the PhD student's development as a researcher

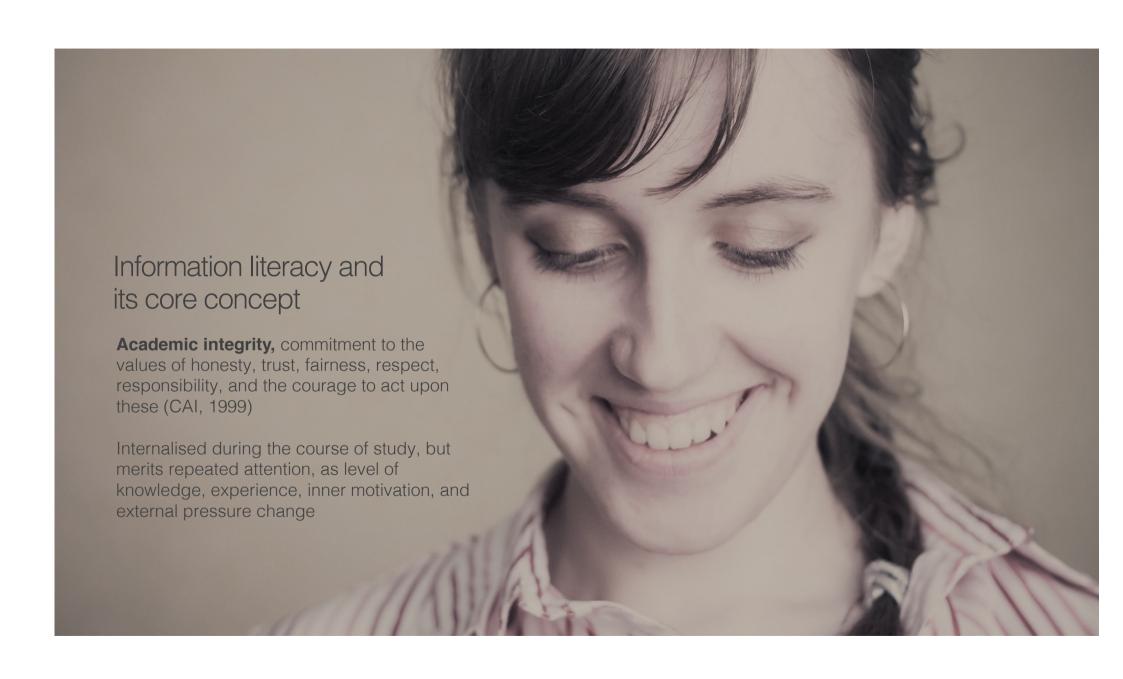
#### The objective

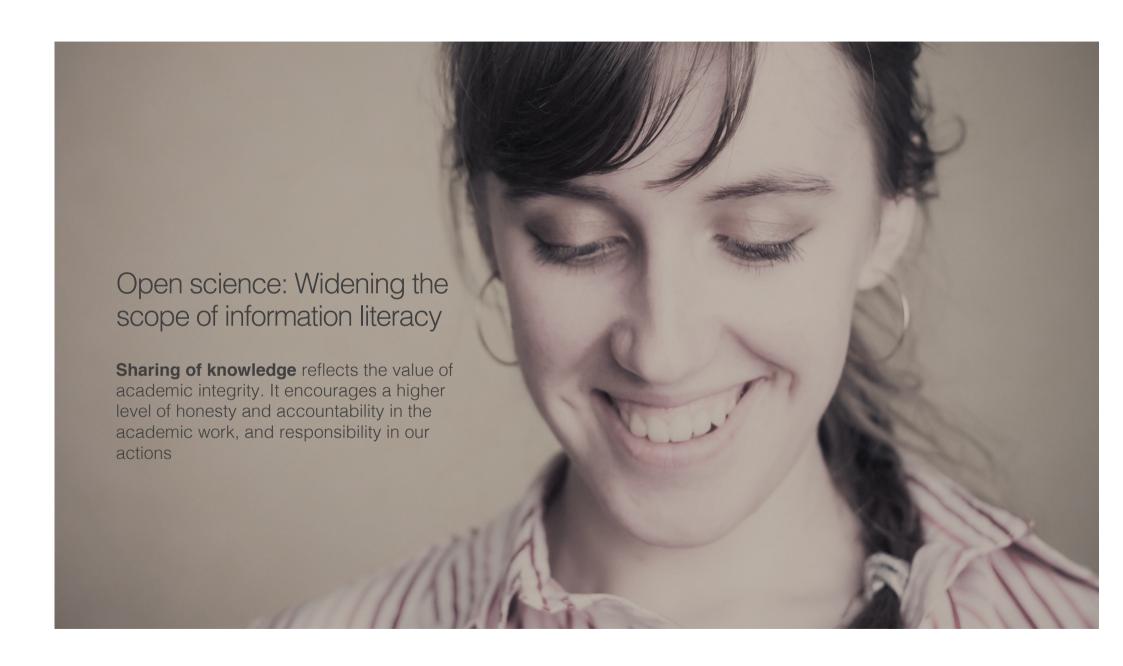
Help the PhD student make informed choices in the various phases of the writing process

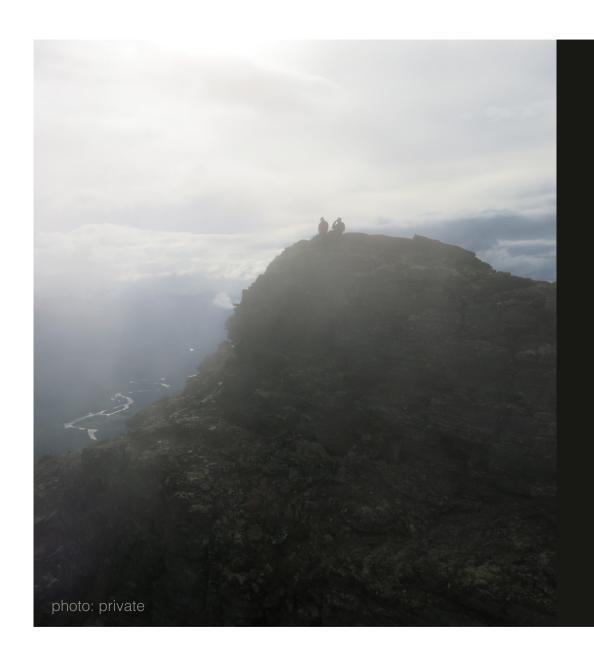
#### The teaching strategy

Focus on the whys to encourage learning of the hows









# Take control of your PhD journey

From (p)reflection to publishing

Academic integrity and the transparency of science

Searching for literature

Open access publishing

Research data management

Reference management

## The setting

#### Making use of the student diversity

Reduce the "silo-ing effect" by allowing students across disciplines to meet in interactive seminars, where discussion and group activities are favoured in course planning

UiT is a multidisciplinary institution, with a high rate of international students: 42% (321/767) with a non-Norwegian nationality entering the PhD programmes in the period 2012-2016

Drawing on their own experience, scientific and cultural, participants can relate to the course content, all while being encouraged to exit their bubble and reflect on other people's perspectives



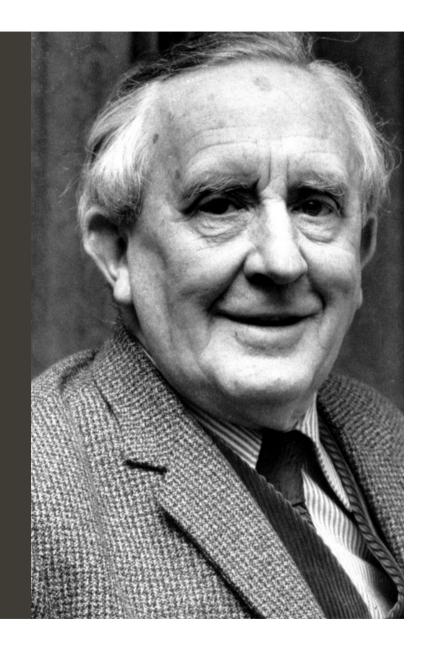
## The study

seminar discussions, course evaluations, pre-surveys, post-surveys, own reflections

## Academic integrity

Even the smallest person can change the course of the future

The Fellowship of the Ring J.R.R. Tolkien (1954)



### Academic integrity

Even the smallest person can change the course of the future

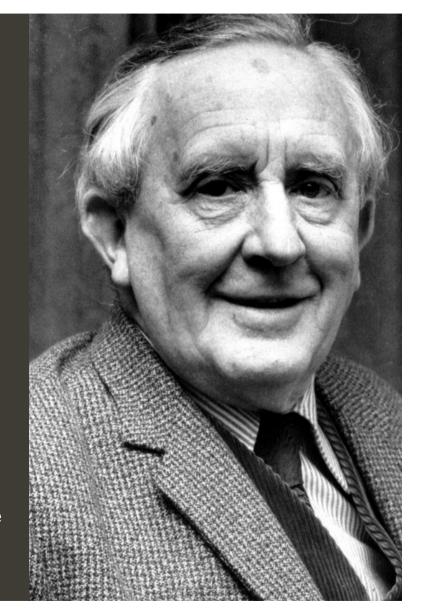
The Fellowship of the Ring J.R.R. Tolkien (1954)

Focus on research conduct, the dynamics of academia, our place in it

- the value of the contribution to science and society in general
- the value of the developmental process
- the consequences of our choices, for ourselves and others

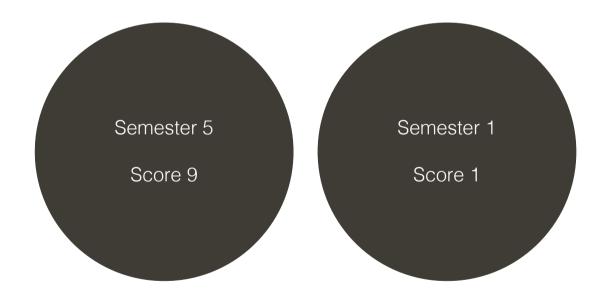
Plagiarism, questionable research practices and misconduct: might hinder progress and harm society

Sharing of research opens for broader feedback, shows compliance with expectations in current research funding, helps realise the role we play



# Why do a PhD?

I can go in depth into a topic that interests me I love science "As a PhD student, I find it hard to balance the pressure to do good research and the pressure to publish quickly"



## The focus of your supervisor?

The contribution of my research to academia

The contribution of my research to society in general

Pressure comes from outside

Open access and supervisors

Not a theme for discussion

Fully engaged, or "interested but cautious"

(Education for change, 2012)

## Knowledge about open science

Open access

Related to publishers

Little knowledge about open repositories and self-archiving

Open data

Little knowledge about how and where to share Uncertain about how to find data shared by others

# Attitudes towards prestige & being a good academic

Impact factor does play a role

Transparency ensures good quality research, which in itself is prestigious

Different processes for publishing articles and publishing data: No impact factor for data repositories

Sharing data: Good for science, good for the career

Concern: Scooping and missing attribution
Going open does not mean removing our ownership: We decide what and
when to share, and it must be cited

# Assumed relevancy to others & decision on sharing data

I would share because you never know which data people might find relevant in the future

I would share because I know of people who would be interested in my data

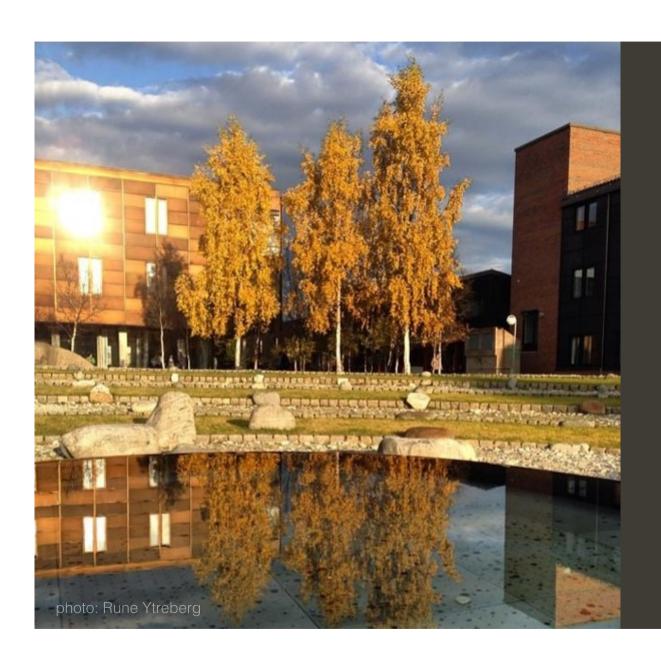
I can't share because my data are sensitive

### Sharing data: A gateway to open science thinking

Students starting a PhD nowadays are stepping straight into a data-rich environment and will need to handle this rapidly evolving research landscape with confidence if they are to fully realise their research potential. [...] We need to stop focusing on published papers, and start demanding delivery of a coherent research story: that is, the research report, methods, data, metadata, all appropriately licensed and readily, freely available online. We have focused too long on turning students into research producers: we need to start making them see that they're research users as well. Only then can they start producing verifiable, reproducible, useful research.

Open Science Training Initiative

http://www.opensciencetraining.com



# The University Library at UiT as a driving force in the work on open science

Long experience with OA publishing, operation of the institutional archive Munin, and administration of the UiT Publication Fund

For more information:

M. Løkse & L. Longva: How to become top of the class in open science. (Breakout session B, Monday and Tuesday, at 14.30)

# UiT and research data management

**June 2015** Launch of the Tromsø Repository of Language and Linguistics (TROLLing). An operational service, but also a pilot archive for the future institutional archive

May 2016 Launch of an independent module on research data management in the Take Control seminar series

**September 2016** Launch of UIT Open Research Data, including introductory courses on how to use the archive

**February 2017** Launch of a series of training modules on research data management (searching, citing, structuring, Data management plans)

September 2017 Effectuation of the UiT Open data policy



# Why haven't the supervisors told us about this?

We would really like to have a bullet point list with the main arguments for having DMPs and sharing data, and how to do it

Then we can refer to this and the library's competence when we discuss with the professors

## Meeting with faculty

#### The authority issue

"It is essential that librarians be known and trusted by faculty as well as their students. A faculty member's endorsement of a librarian's ability of helpfulness may be one of the most important factors in encouraging PhD students to approach that librarian for assistance."

(Fleming-May & Yuro, 2009, p. 215)

#### How to get there

- identify our competencies and skills
- avoid planning too long, put the idea into action
- read, (peer) evaluate, revise
- actively seek dialogue, on all levels, to promote, get feedback on, and improve the service



#### Take control 2015-2017

From an idea to a formal, interdisciplinary course with ECTS credits

March 2017: Approved by the UiT strategic scientific committee

Fall 2017: In the program of the annual seminar for PhD supervisors

### Probable door opener: Research data management

Possible effect: Make visible the knowledge necessary to provide good quality library-led training modules





## Searching for literature: The necessity of tailor-making the traditional library service

Rather than conceive of information literacy as a domain into which students ought to fit, I suggest that **students exhibit information competencies in their own ways**, even though the attributes may be individualized, tacit, unrecognized, or differently named. (Green, 2010, p. 315)

The aim of doing literature search Make good research, develop independence and a researcher identity

The challenges of doing literature search Linguistic, methodological, conceptual, ontological (Chen et al., 2016)

**The librarian's contribution** Explain advanced tools and make the student identify the whys. More easy to provide good teaching if the librarian is trained within the discipline

## Revisiting our questions

Which competencies and skills that librarians possess are relevant for the doctoral education?

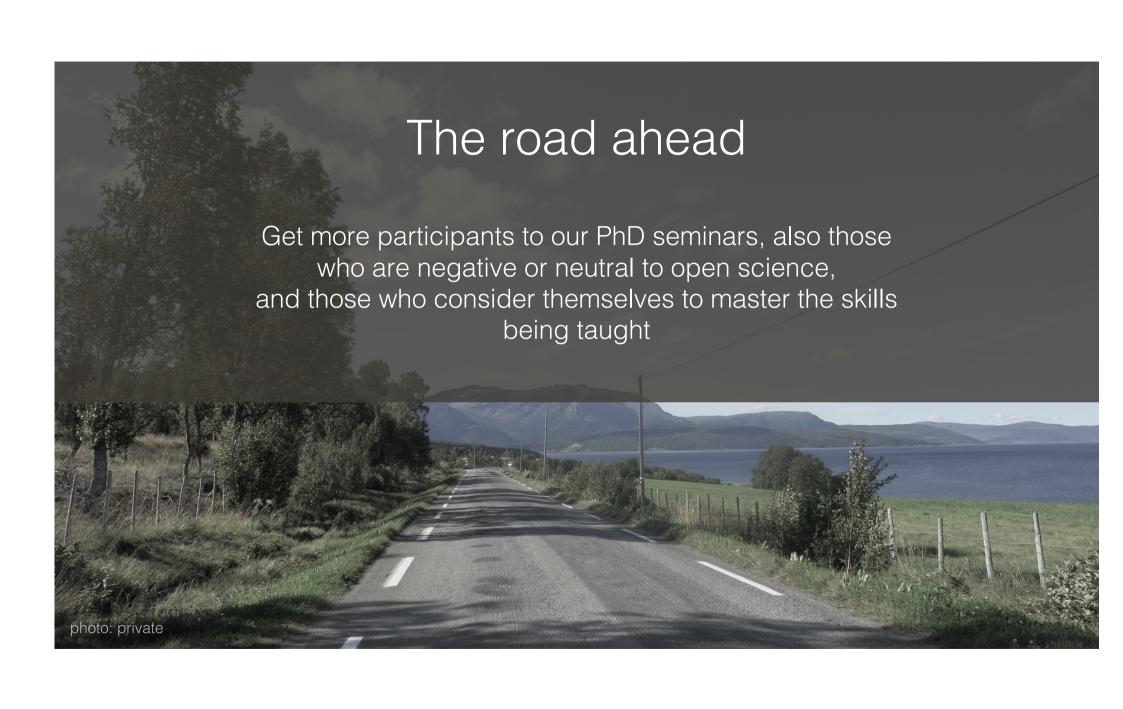
- Information literacy, including critical source evaluation, academic integrity, and open science
- Tools to make informed choices in the collection of information, the writing process, and when publishing

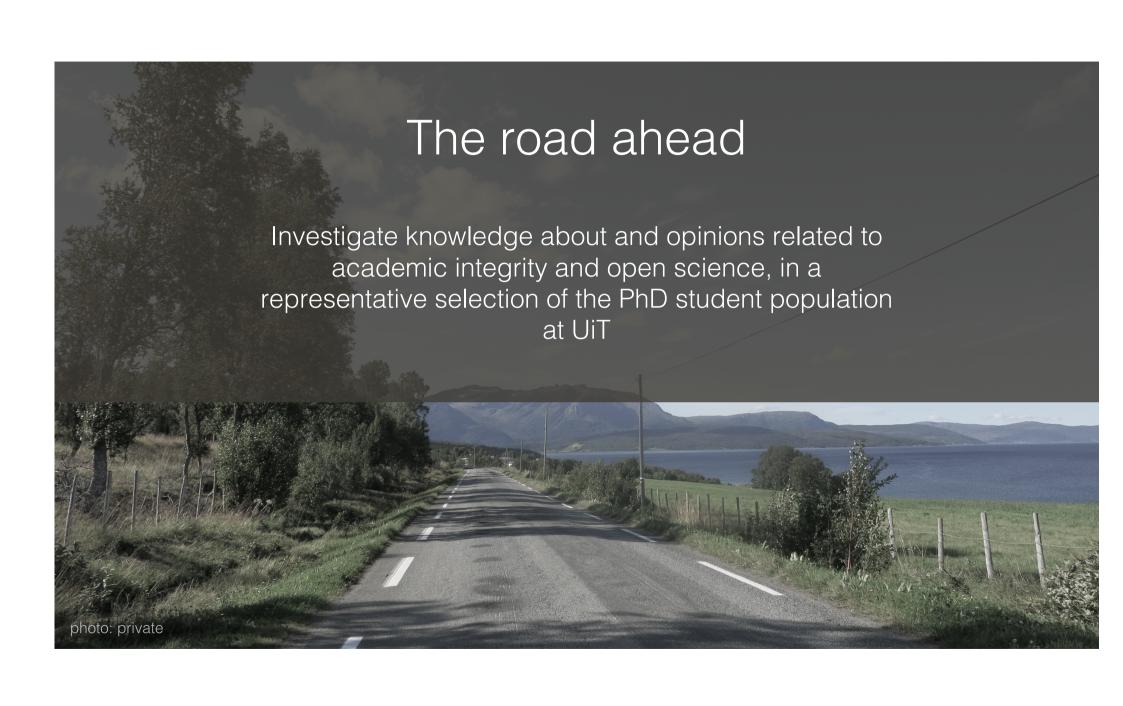
How can the library best support the PhD students?

- Link teaching of practical skills to the reasons behind them
- Make them reflect on the essentials of academia and their role in it
- Be aware of the motivations and pressures likely to drive them

How can PhD support services contribute to development within the teacher librarian group?

- Get a fuller picture of the academic life span
- Via dialogue with faculty and research administration, more clearly identify our role
- Visibility and attractiveness is only of value if we present ourselves as a competent and relevant discussion partner in the teaching situation









## Thank you for your attention\*

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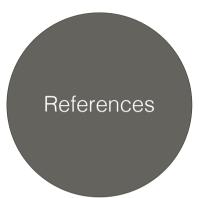
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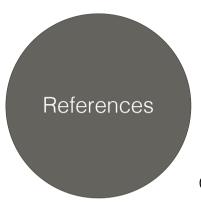
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to read about Take control: ub.uit.no

\*Thanks to the Take Control teacher group at UiT for sharing their thoughts and teaching material with us



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