

# Academic funding models

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## Abstract

Academic research and education (R&E) operations encounter a variety of funding models, albeit of varying suitability for a key service to humanity.

## 1 Introduction

Through its mission of research and education (R&E) for the advancement of humanity (Perdicóúlis, 2018b), academia maintains the body of knowledge broadly known as *science*<sup>1</sup> or επιστήμη (Perdicóúlis, 2012a). R&E operations represent the collective effort and investment of academia, which require both vocation<sup>2</sup> and funding — Figure 1.

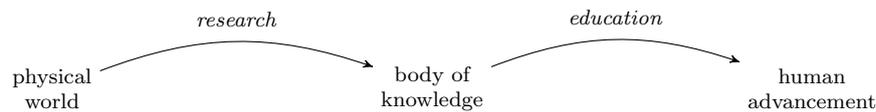


FIGURE 1 R&E represent a significant collective effort and investment for a righteous cause

The vocation of academics has been largely in place, despite occasional distractions by meta-reality issues (Perdicóúlis, 2018a, 2015a), ultimately translated to remuneration or career security. It is R&E funding that remains the bigger issue, relying on international research projects<sup>3</sup> and state governments to fund another part of research and part of education, while the rest remains to be resolved with private funds. Hence, with a need for steadfast funding and currently precarious associations with private and public entities, academia had better seek contemporary options to secure its continued and impartial R&E operations for a righteous cause.

<sup>1</sup> For a holistic worldview, including artefacts, science is extended to the broader concept of *culture*.

<sup>2</sup> From *vocare* [L.], to call — a ‘calling’, urge towards, and/ or dedication to the occupation.

<sup>3</sup> Funding institutions typically issue ‘calls’ for the expression of interest in subjects they deem important.

## 2 The protected model

State, regional, and local governments are legitimate funding bodies for R&E, since they normally assume this commitment as part of their mission. Hence, government funding comes as natural support to academia for the exchange of essential services at the national level — Figure 2.

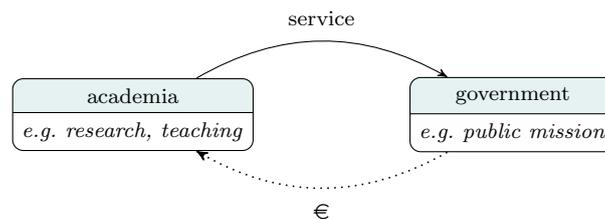


FIGURE 2 Relationships in the protected model of R&E

The sensitive issue is where government care ends and where academics take over, according to their expertise and competence — Figure 3. Although academics generally feel secure within a protected scheme, state funding is susceptible to paternalism<sup>4</sup> manifested in bureaucracy<sup>5</sup>, which implies loss of authority, control, and various liberties essential for their intellectual work — for instance, what to study, at which pace, which associations to make, what to publish, where, and how (Rabesandratana, 2013; Bohannon, 2013).

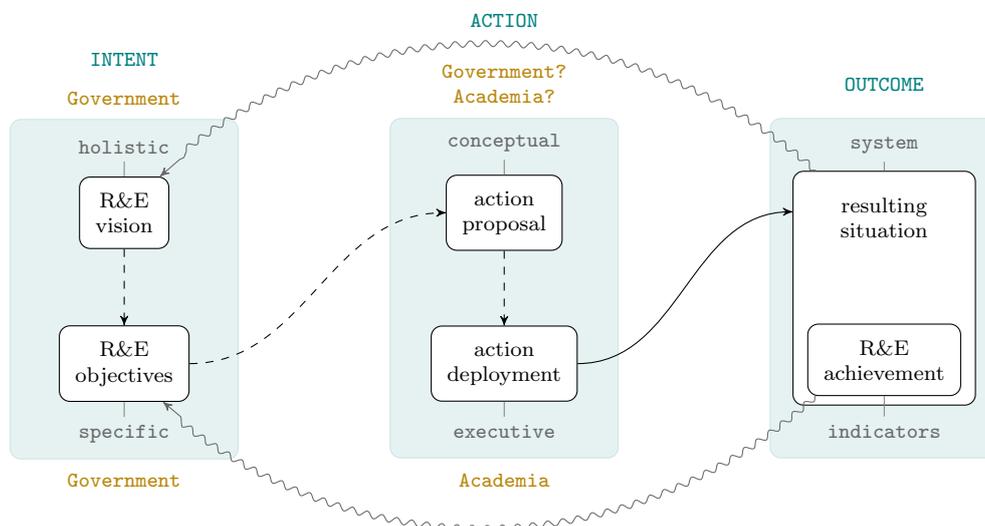


FIGURE 3 R&E strategies can be negotiated and articulated between governments and academia

R&E strategies can be negotiated and articulated between governments and academia, fighting against ill conception of action — e.g. caused by ignorance or lack of experience — and reduced efficiency — e.g. caused by ill coordination between actions (Guellec et al., 2018).

<sup>4</sup> i.e. restricting the freedom and responsibilities of academics in their supposed interest.

<sup>5</sup> i.e. important decisions are taken by state officials rather than the specialists — in this case, academics.

### 3 The service model

With funding in focus, R&E professionals (e.g. researchers, instructors, institutions) become service providers, seeking direct compensation by the beneficiaries (e.g. students, enterprises) — Figure 4. This ‘service’ R&E model is widely used by higher education institutions (HEI) — for instance, by charging tuition fees<sup>6</sup> and ‘community extension services’. Nonetheless, the model clashes with the non-profit nature of HEIs and, in addition, their operational circumstances (e.g. secured running costs and labour) may cause unfair competition to regular businesses.

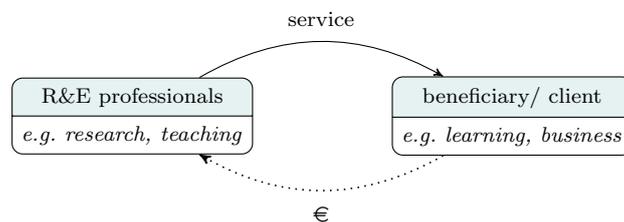


FIGURE 4 The service model of R&E means business

Academics tend to avoid private R&E funding in order to steer clear of private interests and the associated bias (Perdicoulis, 2015b, 2014a), thus seeking independence from agents with potential interests in altering the scientific content or methods to obtain profit. From the educational perspective, the service R&E model may create social injustice by admitting only candidates able to secure their tuition fees, with less privileged candidates being excluded.

### 4 The *laissez-faire* model

Academics can go one step beyond the service model (§3) by securing funding from *any* possible source, without interference from the host institutions or governments. The resulting *laissez-faire* R&E funding model introduces sponsorships that may run from fairness<sup>7</sup> to folly<sup>8</sup> — Figure 5.

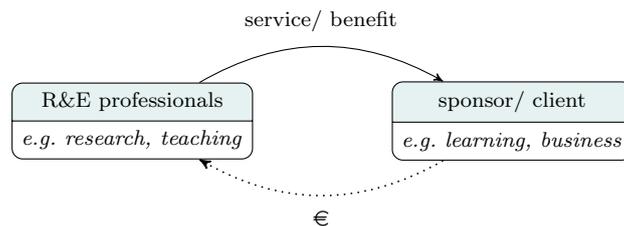


FIGURE 5 *Laissez-faire* funding varies from services as in Figure 4 to free-riding ‘benefit’ sponsorships

As it happens with freedom in general, *laissez-faire* funding allows academics to fare well upon meeting their needs, or ill upon failing to do so — cf. §2. Cautious institutions do not welcome this model for their employees, either due to the shortcomings of the service model (§ 3), or because generous sponsorships may bypass the institutional coffers.

<sup>6</sup> State-funded HEIs cover only a part of the real cost of tuition.

<sup>7</sup> e.g. sponsored research projects or professorships, both of which are common practice in US universities.

<sup>8</sup> e.g. selling prestige, or employing ‘political influence’ to create reinforcing loops of fame and fortune.

## 5 The outsourcing model

Literature and commercial publishing (e.g. autobiographies) have invented an outsourcing option — ‘ghost-writing’ — for authors who are too busy to write, or perhaps lack the necessary skills or confidence. Hence, author *wannabes* hire ghost-writers to write material for them, purchasing the right to put their name as authors. Ghost-writing, and even ghost-teaching, has found its way into academia, both in research and education, in which academics become investors — Figure 6.

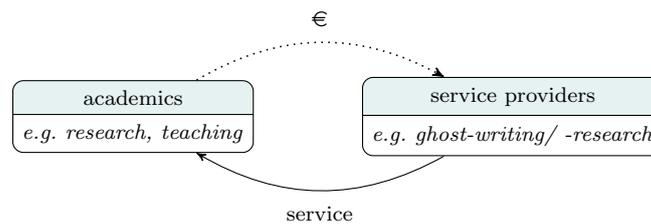


FIGURE 6 Relationships in the outsourcing model of R&E

Funded R&D projects usually provide enough money to hire ghost-writers for a set number of articles, and ghost-writing companies are a fertile ground for PhDs with little prospect of ‘official’ R&E employment. In the same way, as ‘star’ professors are busy with their funded R&D projects, they hire teaching assistants (TAs) to do their teaching, and even research assistants (RAs) to do their research. Both cases are now considered ‘normal’ R&E practice, although ‘old-fashioned’ researchers and students may complain about fairness and/ or quality. The major stumbling block of the outsourcing model, though, is the *traceability* principle, according to which sources — including authors and sponsors — should be truthfully identified (Perdicóúlis, 2012b).

## 6 The redemption model

As part of the research branch of the R&E tandem, scientific publications resolve their financial needs through a variety of funding models (Perdicóúlis, 2014a). Given their involvement in science, it can be debated that scientific publishers should be non-profit, in the same way that universities are. In this line of argument, part of the profits of the commercial publishing system could revert to R&E activities, as a means of redemption — Figure 7.

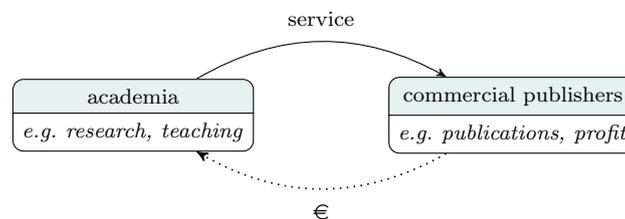


FIGURE 7 Relationships in the redemption model of R&E

The opposition to the redemption model is understandable — or, at least, imaginable — from the perspective of the commercial publishers, but on the other hand they may seize the opportunity to clean up their image and thus remain for longer in the scene, or in business.

## 7 Challenges

The analytically presented funding models of academic R&E may be — and often are — combined creatively. Experience from the funding models of the academic publication (sub-)system suggests that the simplest ones (e.g. historical archives, academic repositories) strike a note of ideal (Perdicoulis, 2014a), but the widely adopted ones are backed by large international firms and state paternalism (Perdicoulis, 2015a, 2018a). Curiosity still remains as to the shaping of the wider R&E dynamics through the stakeholder composition, interests, needs, and forces.

Science sets academia as its curator, thus defining a powerful and responsible position of global dimensions, but the closest approximation of current practice are national ‘academies of science’ such as the AAAS (website) or The Royal Society (website), or subject-specific learned societies. Experience from the academic publication (sub-)system reveals a global profile (Perdicoulis, 2014b), but the function of curators ranges from unbiased and unwieldy (e.g. national libraries, ISO-based registers) to partial and popular (e.g. rating and ranking agencies). Once again, sub-optimal wins.

In search of funding, it is not difficult for academia to compromise its autonomy — and thus its capacity to accomplish its mission — by way of state paternalism (§ 2), private interests (§ 3, § 4), power delusions (§ 4), or dangerous liaisons (§ 5, § 6). Academics stand a chance of coming up with innovative solutions — whether short- or long-term, ethical or not-so-ethical — by keeping R&E finance as a distinct and practical objective. What academic funding should not become at all is an issue of discourse — ‘*academic politics are so vicious because the stakes are so small*’<sup>9</sup>.

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<sup>9</sup> Attributed to H. Kissinger, W. Sayre, R. Neustadt, or others, the quote hints to the counter-productive personal hostility and intrigue encountered among academics, as well as to their disproportionate interest in triviality.