

“Keeping Up with the Influencers”: The Impact of Aspirations on Labour Supply, Sectoral Allocation, and Economic Growth ^{*}

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Abstract

This paper studies how the rise of social media and visibility platforms affects labour supply, skill accumulation, and long-run economic outcomes. Recent evidence shows that younger cohorts devote increasing amounts of time to leisure, gaming, and recreational online activities while reducing their labour supply and investment in human capital. We develop a dynamic macroeconomic model in which individuals derive utility not only from consumption and leisure but also from visibility-driven lifestyle aspirations shaped by exposure to others' lifestyles on social media. As productivity grows, visibility intensifies, amplifying aspirations and shifting time and expenditure away from labour and standard goods toward leisure activities. Calibrated to U.S. data from 1960–2015, the model replicates key empirical trends: the decline in labour supply, the rise in leisure time, the expansion of the leisure-goods sector, and the slowdown in productivity growth. The framework highlights how aspiration-driven reallocations can alter capital accumulation, sectoral employment, and long-run growth. By incorporating social status preferences and visibility dynamics into a macroeconomic setting, the model provides a unified explanation for the rise of the experience economy, the increase in leisure-intensive behaviours among youth, and the evolving structure of modern labour markets. We also provide experimental evidence showing that the presence of status preferences reduces the labour supply of young generations.

Keywords: growth, social media, youth employment

JEL: C23, E44, E58, O43, O50

1. Introduction

There is now a well-established tradition that views status, aspirations and positional concerns as key aspects of economic decision-making and outcomes. These ideas date back to the work of Veblen (1899), but have also attracted significant attention in more recent research (e.g., Frank, 1985; Akerlof, 1997; Corneo and Jeanne, 1997; Cooper et al., 2001; Hopkins and Kornienko, 2004; Abel, 2005; Alpizar et al., 2005; Arrow and Dasgupta, 2009; Aronsson and Johansson-Stenman, 2013; Hovi and Laamanen, 2021). In this study, we construct a model where aspirations and status are manifested in the demonstration effects of lifestyle choices associated with both consumption and leisure activities. Through its analysis, we show that this sort of consumption and leisure externalities is key in explaining a host of empirically-relevant outcomes – both qualitatively and quantitatively. Thus far, the results of the existing literature seem rather mixed with regard to the impact of status and aspirations on economic growth. This impact has been found to be either positive (e.g., Futagami and Shibata, 1998; Alonso-Carrera et al., 2005), or negative (e.g., Fershtman et al., 1996), or even inconclusive (e.g., Wendner, 2010). However, a common theme in the majority of studies is the conventional wisdom that conspicuous consumption increases working hours at the expense of leisure (e.g., Solnick and Hemenway, 2005; Arrow and Dasgupta, 2009; Eaton and Eswaran, 2009). The underlying idea is that individuals supply more labour in order to earn more income, thus being able to afford their, status-driven, ‘excess’ consumption expenditures. Several studies, however, have uncovered a quite different trend in hours worked during the recent decades (e.g., Vandenbroucke, 2007; Aguiar and Hurst, 2007; Abraham and Kearney, 2020). Specifically, these studies have documented the decadeslong decline in the time spend working and the accompanying rise in leisure time. (Perhaps, a graph/figure here?) It is also worth noting that, at the same time, there has been a shift in the sectoral allocation of employment from manufacturing to services (e.g., Bárány and Siegel, 2018). (Again, a graph/figure here?) Given the arguments outlined previously, is the shift in the allocation of time between labour and leisure an indication that status considerations have either dissipated or that they do not have such a significant impact on people’s decision-making? In light of the multitude of factors that can potentially affect labour supply, there is no reason to presume that its decline in recent years is a manifestation of the waning importance

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of aspirations and status for economic decisions. On the contrary, our study goes one step further and advances the hypotheses that such lifestyle aspirations (i) can be a reinforcing factor in explaining the observed decline in the supply of labour and the corresponding increase in leisure time; (ii) can explain the documented changes in the sectoral shifts of employment and expenditure shares, as well as trends regarding growth performance. Our main premise is that both consumption and leisure activities can be important sources of demonstration effects and lifestyle comparisons that have significant effects on people's decision making – see, for example, the evidence by Winkelmann (2012) and Huang and Shi (2015) among others. Of course, the notions of conspicuous consumption and conspicuous leisure, as well as their potential impact on economic activity, are by no means new. In fact, Veblen (1899) devoted much of his treatise to these concepts, while economic historians have documented the importance of material aspirations for the economic transformation that occurred during the industrial revolution (e.g., Stearns, 2001). Nevertheless, the gradual onset of technological advancements in recent decades have greatly expanded the opportunities to observe and share lifestyle choices associated with consumption and leisure, the potential reach of such display, as well as the scope for social comparisons and emulation. Examples of such advancements are the development of colour photography and its contribution to the proliferation of lifestyle magazines, television and, in more recent years, the internet and the widespread use of social media platforms. These are particularly important in light of the fact that the visibility of lifestyles choices is central in determining their capacity to generate sentiments of admiration, envy etc. (Alpizar et al., 2005). Indeed, there is strong evidence showing that TV viewing and engagement with the internet and online social networks nourish stronger lifestyle aspirations (e.g., Frey et al., 2007; Hyll and Schneider, 2013; Lohmann, 2015; Sabatini and Sarracino, 2016; Bronner and de Hoog, 2021). These issues motivate the current study. We construct a growth model where both consumption and leisure involve externalities in the form of aspirations: An agent's utility involves the comparison of an her own lifestyle choices against an economy-wide reference point. In this respect, our modelling approach follows Aronsson and Johansson-Stenman (2013) who also account explicitly for positionality in both consumption and leisure. A key aspect of our framework is that, while the underlying lifestyle aspirations, which involve social comparisons, emulation and demonstration, are always present in agents' preferences, they are also reinforced and intensified by a visibility platform – a technology that expands the scope for observing other agents' lifestyles. This platform becomes available at later stages of economic development, when the economy has accumulated sufficient knowledge and technological prowess to develop such a technology. Following this point, and as the economy grows even further, the technology behind the visibility platform improves, and its use becomes

more widespread, thus intensifying the extent of social comparisons. Another important aspect, for some of our model's implications, is that leisure activities require a combination of time and leisure-specific goods, which we distinguish from standard consumption goods. This distinction is meant to capture the fact that the enjoyment of such activities requires expenditures on services, paraphernalia and equipment. We show that once the economy reaches the stage of development in which the visibility platform becomes operative, and as this platform gradually intensifies lifestyle aspirations, there is a host of interesting implications for economic dynamics. One of them is the gradual decline of agents' labour supply and the corresponding increase of the time they devote to leisure. Although positional concerns apply equally to consumption and leisure, the latter effect dominates, hence the shift in the agents' allocation of time in a manner that is, nevertheless, consistent with the observations and evidence we mentioned previously. Some of the model's implications emanate from our explicit distinction between standard and leisure goods. We find that there is a gradual employment reallocation from the standard goods' sector to the leisure goods' one. This is driven by the combined effect of the increase in the expenditure share on leisure goods, and the decline in the share of expenditures towards productivity improvements, for which the standard (or numéraire) good is the input. Ultimately, this decline is more pronounced compared to the increase in the expenditure share of standard goods'

consumption. Finally, the decline in the share of productivity-enhancing expenditures hinders the economy's growth performance. (Here, a paragraph where we summarise our quantitative analysis, i.e., calibration/numerical examples). Our study contributes to an emerging literature that seeks to explain the underlying mechanisms behind the empirically-observed fall in hours worked, the rise in leisure time, the shifts in the sectoral allocation of employment, and growth performance. Boppart and Krusell (2020) highlight the class of preferences in which income effects dominate substitution effects in determining agents' optimal time allocation in a growing economy. Ngai and Pissarides (2008) focus on the role of sectoral differences in productivity growth. A similar idea is advanced by Boppart and Ngai (2021) whose study also accounts for the fact that the rate of increase in leisure time is inversely related to educational attainment. Rachel (2021) emphasises the role of attention-grabbing investments that increase the desirability of leisure services, thus shifting RD expenditures towards leisure-supporting activities. He also argues that, in addition to causing a rise in leisure time, these same factors are responsible for a sectoral reallocation of employment and for reduced growth performance. Cruz and Raurich (2020) attribute these outcomes to the positive income elasticity of leisure activities in the presence of subsistence consumption. As leisure entails a combination of time and goods, they use this idea to explain why growing economies witness a rise in the

demand for recreational goods, as well as in the employment share of recreational services. We complement the aforementioned literature by advancing a mechanism that has so far eluded the attention of existing research. We highlight the role of technological advancements that increase the visibility of lifestyles, thus intensifying people's desire to emulate them. It is worth noting that our model's results do not rest on the assumption that aspirations are more pronounced in leisure activities relative to consumption. In our framework, the strength of lifestyle aspirations applies equally to both consumption and leisure. The reason why they cause shifts in time, expenditure and sectoral allocations that ultimately favour leisure activities, is because of the response of investment expenditures in the presence of rising aspirations. In this respect, the underlying process of economic growth is an inherent part of the model's outcomes. On the one hand, it brings forth the technological advancements that intensify lifestyle aspirations; on the other hand, the response of growth-promoting investment to the rise of such aspirations is key to the changing trends in hours worked, leisure, and the sectoral allocations of expenditures and employment. The remainder of the paper is organised as follows: Section 2 presents the model's set-up. In Section 3 we derive the equilibrium in terms of time, expenditure, and sectoral allocations. Section 4 analyses the economy's dynamics. In Section 5 we present the quantitative analysis of our model, and in Section 6 we conclude.

2. The Economic Environment

Time is discrete and indexed by t . The economy is populated by an infinite sequence of overlapping generations of agents who live for two periods – childhood and adulthood. The population of each age cohort is constant and normalised to 1, meaning that each adult agent gives birth to one child. Agents are largely inactive in childhood. Altruistic parents bequeath capital to their offspring, who receive these bequests at the beginning of adulthood and rent their capital to firms. In addition, they allocate their time between work and leisure, consume goods and invest in the capital they will bequeath to their own offspring.

There are two types of consumption goods in the economy, indexed by $j = \{S, L\}$. The standard good ($j = S$), which is also the *numéraire*, confers utility by itself; the leisure good ($j = L$) confers utility only if combined with leisure time. Firms in each sector are perfectly competitive and produce goods by employing capital and labour – both supplied by adult agents.

Firms produce goods according to a technology

$$y_{j,t} = A_j k_{j,t}^a (h_t n_{j,t})^{1-a}, \quad A_j > 0, \quad 0 < a < 1$$

and $k_{j,t}$, $n_{j,t}$ denote the capital and labour employed in sector j respectively. The variable h_t is an economy-wide measure of productivity. We use p_t to denote the relative price of the leisure good. We also use $R_{j,t}$, while $w_{j,t}$ to denote the rental rate of capital and the wage per unit of labour in sector j – both measured in units of the numéraire good.

It follows that profits in the standard and leisure goods sectors are given by

$$y_{S,t} - R_{S,t}k_{S,t} - w_{S,t}n_{S,t} = A_S k_{S,t}^a (h_t n_{S,t})^{1-a} - R_{S,t}k_{S,t} - w_{S,t}n_{S,t}, \quad (1)$$

and

$$p_t y_{L,t} - R_{L,t}k_{L,t} - w_{L,t}n_{L,t} = p_t A_L k_{L,t}^a (h_t n_{L,t})^{1-a} - R_{L,t}k_{L,t} - w_{L,t}n_{L,t}, \quad (2)$$

respectively.

Profit maximisation in (1) and (2) means that

$$w_{S,t} = (1-a)A_S h_t^{1-a} \left(\frac{k_{S,t}}{n_{S,t}} \right)^a = (1-a) \frac{y_{S,t}}{n_{S,t}}, \quad (3)$$

$$R_{S,t} = a A_S h_t^{1-a} \left(\frac{k_{S,t}}{n_{S,t}} \right)^{a-1} = a \frac{y_{S,t}}{k_{S,t}}, \quad (4)$$

$$w_{L,t} = p_t (1-a) A_L h_t^{1-a} \left(\frac{k_{L,t}}{n_{L,t}} \right)^a = p_t (1-a) \frac{y_{L,t}}{n_{L,t}}, \quad (5)$$

$$R_{L,t} = p_t a A_L h_t^{1-a} \left(\frac{k_{L,t}}{n_{L,t}} \right)^{a-1} = p_t a \frac{y_{L,t}}{k_{L,t}}. \quad (6)$$

We will assume that there is free movement of capital and labour across the two sectors. It follows that the conditions

$$w_{S,t} = w_{L,t} = w_t, \quad R_{S,t} = R_{L,t} = R_t, \quad (7)$$

must hold in equilibrium.

In the Appendix, we provide a detailed analysis to show that the combination of (3)–(7) leads to

$$p_t = \frac{A_S}{A_L} \equiv p \quad \forall t, \quad (8)$$

We also show that, given (3)–(7), the shares of capital and labour employed by sector j are the same.

Denoting these shares by $f_{j,t}$, it follows that

$$\frac{k_{L,t}}{k_t} = \frac{n_{L,t}}{n_t} \equiv f_{L,t}, \quad (9)$$

$$\frac{k_{S,t}}{k_t} = \frac{n_{S,t}}{n_t} \equiv f_{S,t}, \quad (10)$$

where $f_{S,t} + f_{L,t} = 1$.

The economy's capital stock evolves as a result of parents' investments, which determine bequests. Specifically, each adult agent in time t will invest i_t units of the numéraire good in a technology that delivers units of time- $t + 1$ capital on a one-to-one basis. As a result, the capital that this child will possess when she becomes an adult, i.e., in period $t + 1$, is expressed as¹

$$k_{t+1} = i_t. \quad (11)$$

3. Preferences and Constraints

Each adult agent has preferences that are defined by the utility function

$$u_t = \eta \ln(c_{S,t} - v_c \bar{C}_{S,t}) + \theta \ln(\psi_{L,t} - v_\psi \bar{\Psi}_{L,t}) + (1 - \eta - \theta) \ln(k_{t+1}), \quad (12)$$

where $\eta, \theta \in (0, 1)$ are preference parameters. The last term captures an (imperfectly) altruistic component, whereby a parent enjoys utility by the capital she will bequeath to her offspring. The consumption of the standard good is denoted $c_{S,t}$, while $\psi_{L,t}$ is a composite of leisure time and the consumption of the leisure good.

Using l_t to denote the former and $c_{L,t}$ to denote the latter, we define the composite term according to

$$\psi_{L,t} = l_t c_{L,t}. \quad (13)$$

Note that the enjoyment of standard goods' consumption and leisure activities does not only depend on an agent's own decisions; it also depends on other agents' actions – an idea that is captured by the terms $\bar{C}_{S,t}$ and $\bar{\Psi}_{L,t}$. These are the average levels of standard goods' consumption, and the average composite of

¹Note that, in equilibrium, there is no distinction between the average and the agent-specific stock of capital. This is because there is no heterogeneity among agents who belong to the same age cohort.

leisure time and consumption of leisure goods. Since

$$\frac{\partial u_t}{\partial c_{S,t} \partial \bar{C}_{S,t}} > 0, \quad \frac{\partial u_t}{\partial \psi_{L,t} \partial \bar{\Psi}_{L,t}} > 0,$$

the underlying mechanism here is one of lifestyle aspirations with regard to consumption and leisure, where the economy-wide average of such activities represents the reference point.

The strength of the aforementioned mechanism depends on the term $v_t \in (0, 1)$. We assume that v_t also embeds the contribution of a *visibility platform* in reinforcing lifestyle aspirations. The visibility platform encompasses the means through which agents become increasingly aware of other people's lifestyles. For example, we may think of photography, magazines, television and, in more recent years, social media platforms such as Instagram, Twitter, YouTube etc. Naturally, the development and widespread use of this visibility platform is a result of technological advancements. To keep the analysis tightly focused and to avoid redundant complication, we assume that this technological advancement emerges as a by-product of the economy's development.

Recalling that h_t is the measure of economy-wide productivity, we assume that

$$v_t = v(h_t), \tag{14}$$

such that $v'(h_t) \geq 0$ and, for $\bar{h} > h > 0$, $v(h_t) = v \in (0, 1)$ if $h_t \leq h$, $v(h_t) = \bar{v} \in (0, 1)$ if $h_t \geq \bar{h}$, with $\bar{v} > v$.

Given the above, v captures an agent's basic, innate psychological desire to compare her own lifestyle against the one that other agents enjoy. Once the visibility platform becomes operative (i.e., at $h_t > h$), this demonstration of agents' lifestyles gets a wider reach, thus intensifying the extent to which each person is affected by other people's lifestyles. The visibility platform, and its corresponding impact on agents' aspirations, reaches its maximum potential at \bar{h} . A functional form that we will adopt later in our analysis is the following:

$$v(h_t) = \begin{cases} v, & \text{if } h_t \leq h, \\ v + (\bar{v} - v) \frac{h_t - h}{\bar{h} - h}, & \text{if } h_t \in (h, \bar{h}), \\ \bar{v}, & \text{if } h_t \geq \bar{h}. \end{cases} \tag{15}$$

Once she reaches adulthood, the agent is endowed with one unit of time, which she allocates between

leisure time and labour. Therefore,

$$l_t + n_t = 1. \quad (16)$$

In addition to the time constraint, the agent also faces a budget constraint. In light of the model characteristics and description, it follows that the budget constraint is expressed as

$$c_{S,t} + p_t c_{L,t} + i_t = R_t k_t + w_t n_t. \quad (17)$$

Note that the right-hand side of (17) is the total income at the agent's disposal. This is the sum of her labour income and the income she receives by renting her capital to firms.

4. Optimal Choices and Equilibrium

The objective of an adult agent in t is to choose $c_{S,t}$, $c_{L,t}$, i_t , n_t and l_t to maximise her utility function, subject to her budget constraint, her time constraint, and the capital investment technology. While making her optimal choices, she takes w_t , R_t , v_t , h_t , k_t , $\bar{C}_{S,t}$ and $\bar{\Psi}_{L,t}$ as given.

Substituting (11), (13), (16) and (17) in (12), we can equivalently express the problem as

$$\max_{c_{L,t}, l_t, i_t} \{ \eta \ln(R_t k_t + w_t(1 - l_t) - p_t c_{L,t} - i_t - v_t \bar{C}_{S,t}) + \theta \ln(l_t c_{L,t} - v_t \bar{\Psi}_{L,t}) + (1 - \eta - \theta) \ln(i_t) \}. \quad (18)$$

The first order conditions for this problem are the following:

$$\frac{\partial u_t}{\partial c_{L,t}} = 0 \quad \Rightarrow \quad \frac{\eta p}{R_t k_t + w_t(1 - l_t) - p_t c_{L,t} - i_t - v_t \bar{C}_{S,t}} = \frac{\theta l_t}{l_t c_{L,t} - v_t \bar{\Psi}_{L,t}}, \quad (19)$$

$$\frac{\partial u_t}{\partial l_t} = 0 \quad \Rightarrow \quad \frac{\eta w_t}{R_t k_t + w_t(1 - l_t) - p_t c_{L,t} - i_t - v_t \bar{C}_{S,t}} = \frac{\theta c_{L,t}}{l_t c_{L,t} - v_t \bar{\Psi}_{L,t}}, \quad (20)$$

$$\frac{\partial u_t}{\partial i_t} = 0 \quad \Rightarrow \quad \frac{\eta}{R_t k_t + w_t(1 - l_t) - p_t c_{L,t} - i_t - v_t \bar{C}_{S,t}} = \frac{1 - \eta - \theta}{i_t}. \quad (21)$$

Note that, in equilibrium, the following conditions hold because of the lack of heterogeneity among adult agents:

$$c_{S,t} = \bar{C}_{S,t}, \quad \psi_{L,t} = \bar{\Psi}_{L,t}. \quad (22)$$

Combining (10), (16)–(17), (19)–(22) and using some tedious (but straightforward) algebra, leads to the

following results:

$$c_{S,t} = \frac{\eta}{1 - (1 - \eta - \theta)v_t} (R_t k_t + w_t n_t). \quad (23)$$

$$p_t c_{L,t} = \frac{\theta}{1 - (1 - \eta - \theta)v_t} (R_t k_t + w_t n_t), \quad (24)$$

$$i_t = \frac{(1 - \eta - \theta)(1 - v_t)}{1 - (1 - \eta - \theta)v_t} (R_t k_t + w_t n_t). \quad (25)$$

The solutions in Eq. (23)–(25) show how agents optimally distribute their total (i.e., capital and labour) income between the consumption of standard goods, the consumption of leisure goods, and their capital investment. Naturally, each component is increasing in the factor by which it is weighted in the utility function. In addition, however, the share of each component of expenditure also depends on the relative strength of aspirations in consumption and leisure, i.e., on v_t . We examine this impact through

Lemma 1.

$$\frac{\partial(c_{S,t}/(R_t k_t + w_t n_t))}{\partial v_t} > 0, \quad \frac{\partial(p_t c_{L,t}/(R_t k_t + w_t n_t))}{\partial v_t} > 0, \quad \frac{\partial(i_t/(R_t k_t + w_t n_t))}{\partial v_t} < 0.$$

Proof. It follows from straightforward differentiation of the results in (23)–(25). \square

The outcomes summarised in Lemma 1 are quite intuitive. The presence of aspirations increases the marginal utility of standard goods' consumption and leisure activities, thus inducing an increase in the demand for both standard and leisure goods by all agents. This occurs at the expense of parental bequests and, therefore, capital investment.

Of course, the impact of lifestyle aspirations on optimal choices is not restricted to the allocation of expenditures. It also has important implications for agents' optimal time allocation between labour and leisure. To see this, substitute (13), (16) and (22)–(25) in (20). Subsequently, solve the resulting expression for l_t , to get

$$l_t = \frac{\theta}{\theta + (1 - a)[1 - (1 - \eta - \theta)v_t]}. \quad (26)$$

Substituting (26) in (16), and rearranging, yields

$$n_t = \frac{(1 - a)[1 - (1 - \eta - \theta)v_t]}{\theta + (1 - a)[1 - (1 - \eta - \theta)v_t]}. \quad (27)$$

Given the previous analysis, we can derive the results in

Lemma 2.

$$\frac{\partial l_t}{\partial v_t} > 0, \quad \frac{\partial n_t}{\partial v_t} < 0.$$

Proof. It follows from straightforward differentiation of the results in (26) and (27). \square

The intuition for these results is the following: The higher is v_t , the stronger is the impression from other agents' lifestyles which, in turn, induce stronger aspirations. This generates a desire to increase the consumption of both standard and leisure goods. The former encourages an increase of labour supply, whereas the latter encourages an increase of leisure time, because it complements the enjoyment of leisure goods. At the same time, however, the response to stronger lifestyle aspirations reduces the income share of capital investment expenditures – another outcome that encourages a reallocation of time away from labour and towards leisure. When considering all these mechanisms, it is the desire to increase leisure time that ultimately dominates, hence the outcome in Lemma 2.

Next, we will examine the equilibrium in the input and goods markets. With regard to the latter, each sector's produced output must be equal to the demand for each sector's goods. Recalling that capital investment involves expenditures on the numéraire good, it follows that

$$y_{S,t} = c_{S,t} + i_t, \tag{28}$$

and

$$y_{L,t} = c_{L,t}. \tag{29}$$

Combining $f_{S,t} + f_{L,t} = 1$, (3)–(7), (9)–(10), (23)–(25), and (28)–(29) we can derive

$$f_{S,t} = \frac{1 - \theta - (1 - \eta - \theta)v_t}{1 - (1 - \eta - \theta)v_t}, \tag{30}$$

$$f_{L,t} = \frac{\theta}{1 - (1 - \eta - \theta)v_t}. \tag{31}$$

In addition to each sector's capital and labour shares, the solutions in (30) and (31) are also the expenditure shares on standard and leisure goods. We can use these solutions to present the outcomes in

Lemma 3.

$$\frac{\partial f_{S,t}}{\partial v_t} > 0, \quad \frac{\partial f_{L,t}}{\partial v_t} < 0.$$

Proof. It follows from straightforward differentiation of the results in (30) and (31). □

Since capital and labour are perfectly mobile across the two sectors, meaning that their real returns must be equal, the allocation of inputs will reflect the demand conditions in these two sectors. A higher v_t increases the demand for leisure goods relative to standard ones, as the standard goods' sector is also affected by the decline in capital investment expenditures. As leisure (standard) good firms have to supply more (less) output, they increase (decrease) the quantity of inputs they employ.

To complete this part of the analysis, and before we proceed to the dynamics and the implications of economic growth, we should emphasise that the previous results do not rest on any assumption about the motive for emulating other agents' lifestyles being stronger in leisure activities. As we have seen, the term that quantifies the strength of lifestyle aspirations, i.e., v_t , applies equally to both standard consumption and leisure.

The critical element for the time and sectoral allocation shifts – in response to stronger aspirations that favour leisure activities – is the underlying incentive that drives capital formation. To see this, consider a static version of the model in which agents do not have any incentive to devote resources for capital investments; in other words, consider a scenario where $\eta + \theta = 1$. In this case, (23)–(24), (26)–(27), and (30)–(31) reveal that the presence of lifestyle aspiration does not have any effect on the model's outcomes, simply because the conflicting effects of v_t on the optimal allocations of an agent's time and expenditure are of equal magnitude and, therefore, cancel each other out.

In this model, it is the response of i_t to the presence of consumption and leisure aspirations that ultimately tilts the balance and shifts the agent's resources towards leisure activities. Put differently, economic growth has a dual significance in our framework: (i) it brings forth technological changes that induce stronger aspirations, and (ii) the investment in the underlying process that drives economic growth is the key channel through which stronger aspirations affect agents' decisions.

5. Lifestyle Aspirations and Economic Dynamics

We follow Romer (1989) in assuming that, as a result of economy-wide learning spillovers, the economy's productivity is related to the average stock of capital. That is

$$h_t = k_t. \tag{32}$$

Given that $\bar{k}_t = k_t$ hold in equilibrium, we can substitute (2), (4), (10), (14), (27) and (32) in (11), and

rearrange to derive the growth rate of productivity as follows:

$$\frac{h_{t+1}}{h_t} - 1 = \frac{\gamma[1 - v(h_t)][1 - (1 - \eta - \theta)v(h_t)]^{1-a}}{[\theta + (1 - a)[1 - (1 - \eta - \theta)v(h_t)]]^{1-a}} - 1 \equiv g(h_t), \quad (33)$$

where

$$\gamma \equiv A_S(1 - \eta - \theta)(1 - a)^{1-a}$$

is a composite term. We can use Eq. (33) to present the result in

Lemma 4. *Suppose that*

$$\gamma > \frac{[\theta + (1 - a)[1 - (1 - \eta - \theta)\bar{v}]]^{1-a}}{(1 - \bar{v})[1 - (1 - \eta - \theta)\bar{v}]^{1-a}}.$$

Then $g(h_t) > 0$ for all t .

Proof. Combining Eq. (33) and $v'(h_t) \geq 0$, we can show that

$$g'(h_t) = \frac{\partial g(h_t)}{\partial v(h_t)} v'(h_t) \leq 0.$$

Therefore, the growth rate will be always positive, as long as it is positive for $v_t = \bar{v}$. \square

According to Lemma 4, the economy can sustain positive growth in the long-run. This outcome implies that, given an initial condition $h_0 < h$, the processes of capital formation and productivity growth will lead the economy to a gradual transition above the thresholds h and, subsequently, \bar{h} . As we will see shortly, this dynamic process will have significant implications for the role of economic growth in inducing lifestyle aspirations which, in turn, determine agents' allocation of time between different activities, as well as the allocation of labour and expenditures across the different sectors of the economy.

To analyse all these implications, we can begin by substituting (14)-(15) in (26)(27) to get

$$n_t = \begin{cases} \frac{(1 - a)[1 - (1 - \eta - \theta)v]}{\theta + (1 - a)[1 - (1 - \eta - \theta)v]} & \text{if } h_t \leq h, \\ \frac{(1 - a)[\bar{h} - h - (1 - \eta - \theta)[v(\bar{h} - h) + (\bar{v} - v)(h_t - h)]]}{\theta(\bar{h} - h) + (1 - a)[\bar{h} - h - (1 - \eta - \theta)[v(\bar{h} - h) + (\bar{v} - v)(h_t - h)]]} & \text{if } h_t \in (h, \bar{h}), \\ \frac{(1 - a)[1 - (1 - \eta - \theta)\bar{v}]}{\theta + (1 - a)[1 - (1 - \eta - \theta)\bar{v}]} & \text{if } h_t \geq \bar{h}, \end{cases} \quad (34)$$

and

$$l_t = \begin{cases} \frac{\theta}{\theta + (1-a)[1 - (1-\eta-\theta)v]} & \text{if } h_t \leq h, \\ \frac{\theta(\bar{h}-h)}{\theta(\bar{h}-h) + (1-a)[\bar{h}-h - (1-\eta-\theta)[v(\bar{h}-h) + (\bar{v}-v)(h_t-h)]]} & \text{if } h_t \in (h, \bar{h}), \\ \frac{\theta}{\theta + (1-a)[1 - (1-\eta-\theta)\bar{v}]} & \text{if } h_t \geq \bar{h}. \end{cases} \quad (35)$$

Similarly, we can substitute (14)–(15) in (30)–(31) to derive

$$f_{S,t} = \begin{cases} \frac{1-\theta - (1-\eta-\theta)v}{1 - (1-\eta-\theta)v} & \text{if } h_t \leq h, \\ \frac{(1-\theta)(\bar{h}-h) - (1-\eta-\theta)[v(\bar{h}-h) + (\bar{v}-v)(h_t-h)]}{\bar{h}-h - (1-\eta-\theta)[v(\bar{h}-h) + (\bar{v}-v)(h_t-h)]} & \text{if } h_t \in (h, \bar{h}), \\ \frac{1-\theta - (1-\eta-\theta)\bar{v}}{1 - (1-\eta-\theta)\bar{v}} & \text{if } h_t \geq \bar{h}, \end{cases} \quad (36)$$

and

$$f_{L,t} = \begin{cases} \frac{\theta}{1 - (1-\eta-\theta)v} & \text{if } h_t \leq h, \\ \frac{\theta(\bar{h}-h)}{\bar{h}-h - (1-\eta-\theta)[v(\bar{h}-h) + (\bar{v}-v)(h_t-h)]} & \text{if } h_t \in (h, \bar{h}), \\ \frac{\theta}{1 - (1-\eta-\theta)\bar{v}} & \text{if } h_t \geq \bar{h}. \end{cases} \quad (37)$$

In what follows, we let $h_0 < h$. Given this, a first major implication comes in the form of

Proposition 1. *Once the economy reaches the stage of economic development in which the visibility platform becomes operative, the intensification of lifestyle aspirations contributes to a gradual decline of the supply of labour and a corresponding increase of the time devoted to leisure activities. Furthermore, the employment and expenditure shares of the leisure goods' sector increase, whereas the employment and expenditure shares of the standard goods' sector decline.*

Proof. It follows from Lemmas 2–4 and (34)–(37). \square

At the early stages of economic development (before the stock of capital and productivity reach h) the economy has not achieved the level of knowledge and technological sophistication that would allow the creation of a visibility platform, which increases the attention and awareness of agents' lifestyles. Thus, the share of agents' expenditures on different goods and their time allocation are both constant; they also

have limited reliance on agents' positional concerns. Correspondingly, the employment share of the two production sectors remains fixed as well.

At the stage of economic development where productivity exceeds h , however, there is a technological advancement in the form of the visibility platform that gradually increases the magnitude of v_t . This intensifies agents' aspirations, as they increasingly observe and try to mimic the lifestyles of their peers. In response, they gradually rebalance their expenditures in favour of leisure goods (see Lemma 1) while, at the same time, increasing the time they spend in order to enjoy the consumption of these goods. This happens at the expense of the time they spend working, which declines (see Lemma 2). As an increasing fraction of the economy's expenditures shifts towards leisure goods, there is a rise in the employment share claimed by the leisure goods' firms, because they face a relatively higher demand for their products (see Lemma 3).

This process continues until the stage of economic development reaches the threshold \bar{h} – the point when the technology behind the visibility platform reaches its potential. After this, the agents' allocation of time and the allocation of labour between the two production sectors settle down once more to a stationary state, which nevertheless reflects the changes instigated by the presence of more intense lifestyle aspirations.

Naturally, the aspirations-induced shift in capital investment expenditures has implications for the economy's growth performance. To see this, substitute (15) in (33) to get

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Naturally, the aspirations-induced shift in capital investment expenditures has implications for the economy's growth performance. To see this, substitute (15) in (33) to get

$$g(h_t) = \begin{cases} \frac{\gamma(1-v)[1-(1-\eta-\theta)v]^{1-a}}{\{\theta+(1-a)[1-(1-\eta-\theta)v]\}^{1-a}} - 1, & \text{if } h_t \leq h, \\ \gamma \left\{ 1 - \left[v + (\bar{v}-v) \frac{h_t-h}{\bar{h}-h} \right] \left\{ 1 - (1-\eta-\theta) \left[v + (\bar{v}-v) \frac{h_t-h}{\bar{h}-h} \right] \right\}^{1-a} \right\} \\ \quad / \left\{ \theta + (1-a) \left\{ 1 - (1-\eta-\theta) \left[v + (\bar{v}-v) \frac{h_t-h}{\bar{h}-h} \right] \right\} \right\}^{1-a} - 1, & \text{if } h_t \in (h, \bar{h}), \\ \frac{\gamma(1-\bar{v})[1-(1-\eta-\theta)\bar{v}]^{1-a}}{\{\theta+(1-a)[1-(1-\eta-\theta)\bar{v}]\}^{1-a}} - 1, & \text{if } h_t \geq \bar{h}. \end{cases} \quad (38)$$

From which we can derive the result in

Proposition 2. *Once the economy reaches the stage of economic development in which the visibility platform becomes operative, the intensification of lifestyle aspirations hinders the economy's growth performance.*

Proof. From (38), it can be easily established that

$$g'(h_t) \leq 0 \quad \text{for } h_t > h.$$

□

Once again, this is an intuitive outcome in the context of this framework. The visibility platform intensifies agents' lifestyle aspirations, thus inducing them to shift their expenditures towards leisure goods. Capital investment is one of the activities that bears the cost of these decisions; although investment expenditures increase, the output share of these expenditures declines. Consequently, the rates of capital accumulation, productivity, and output growth decline as agents engage in a more intense 'competition' of lifestyle display. This decline is exacerbated by the decrease of labour supply, as it further reduces the income invested towards capital formation.

6. Quantitative Results

In this section, we will elaborate on a quantitative simulation of our model. To do this, we need to specify a specific functional form for the visibility platform captured by $v(h_t)$. Given the properties outlined following Eq. (14), we adopt the following:

$$v(h_t) \equiv \begin{cases} 0, & \text{if } h_t \leq h, \\ \bar{v} \left(1 - e^{-\lambda(h_t^\beta - h^\beta)} \right), & \text{if } h_t > h, \end{cases} \quad (33)$$

where $\lambda, \beta > 0$ and $e \simeq 2.71828$ is Euler's number. We will set numerical values for the model's structural parameters and for an initial condition h_0 that satisfies $h_0 < h$, and then evaluate the model's performance accordingly.

We calibrate the benchmark model at a yearly frequency. The parameterization of the model follows

$$\gamma = 1.5,$$

$$\bar{v} = 0.6,$$

$$\theta = 0.3,$$

$$\eta = 0.05,$$

$$h_1^* = 0.2,$$

$$h_2^* = 1.6,$$

$$\underline{v} = 0.2,$$

$$h_0 = 0.2,$$

$$a = 0.6.$$

Then, we use time series from 1960 until 2015 of the us data regarding productivity, time allocation on leisure, time allocation on labour, share of labour on standard sector, share of labour on leisure sector, , productivity growth, consumption expenditure share on the standard goods sector as well consumption expenditure share on the leisure good sector. The we simulate our model to check wether it justifies the data.

We use U.S. time-series data spanning the period 1960–2015 to examine whether the model's quantitative implications are consistent with the empirical patterns observed in productivity, the allocation of time between labour and leisure, the distribution of employment across production sectors, the evolution of

productivity growth, and the composition of consumption expenditure between standard and leisure goods. After calibrating the structural parameters, we simulate the dynamic system implied by the model and compare its predictions with the corresponding empirical series.

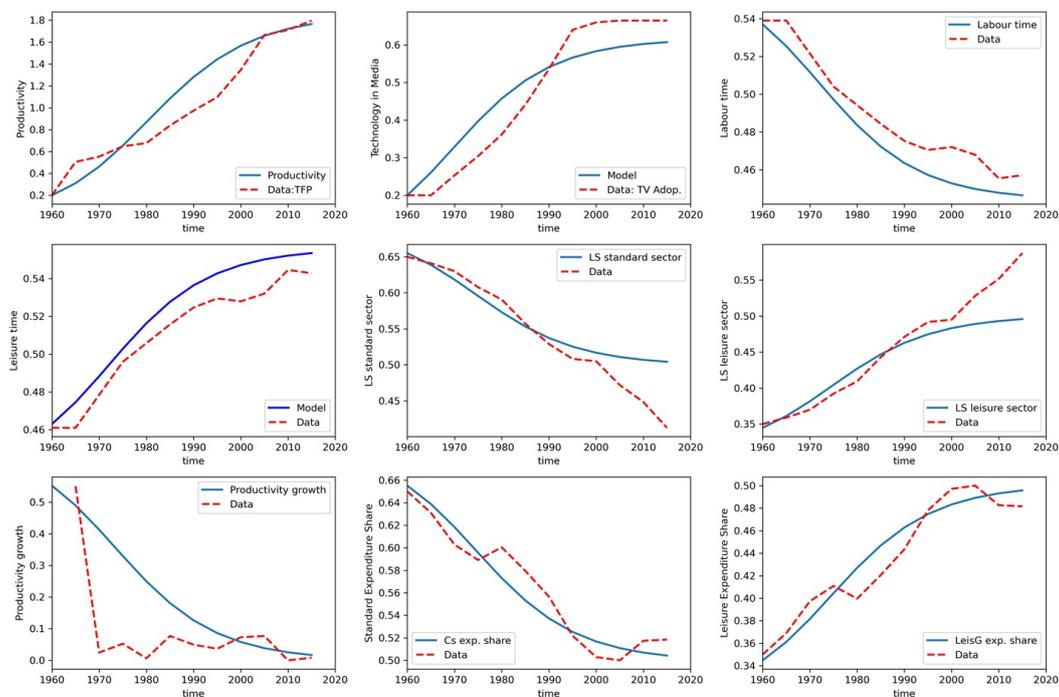


Figure 1: **Visibility Platforms and Labour Market Outcomes**

The simulation reproduces the main long-run movements of the U.S. economy remarkably well. The model generates a sustained increase in productivity that parallels the empirical trend, capturing both the magnitude and the timing of the long-run rise, although the simulated path is somewhat smoother than the data. A similar pattern is observed in the evolution of the visibility index, which we proxy using the diffusion of media technologies: the model reproduces the upward trajectory associated with the spread of television and other communication platforms, mimicking the gradual shift towards a high-visibility environment.

The reallocation of time from labour to leisure is one of the central mechanisms embedded in the model, and the simulated trajectory aligns closely with the empirical evidence. The decline in labour time generated by the model follows the same downward trend as in the data, while the corresponding increase in leisure time mirrors the observed rise in the amount of non-work time over this period. The empirical series display some short-run fluctuations that the model does not attempt to replicate, but the long-run monotonic patterns are well captured.

The structural transformation implied by the model—driven by the intensification of lifestyle aspira-

tions—also emerges clearly in the sectoral allocation of employment. The simulated decline in the employment share of the standard-goods sector and the parallel increase in the share of the leisure-goods sector track the empirical transformation of the U.S. economy from manufacturing-intensive to experience- and service-oriented activities. While the model produces smooth transitions, the data exhibit more pronounced short-term variations, particularly in the 1990s and early 2000s. Nonetheless, the broad reallocation pattern is accurately reproduced.

The model also captures the long-run behaviour of productivity growth. Both the simulated and empirical series display a declining trend, consistent with the premise that rising lifestyle aspirations gradually reorient expenditure away from investment-intensive standard goods and toward leisure goods, thereby reducing the share of resources devoted to capital accumulation. Although the empirical series exhibits substantial noise reflecting cyclical fluctuations and structural shocks, the overall downward drift is consistent with the mechanism the model highlights.

Finally, the simulated evolution of consumption expenditure shares aligns closely with observed data. The gradual decline in the share of consumption devoted to standard goods and the steady rise in the share allocated to leisure goods both emerge endogenously from the model’s aspiration-driven demand dynamics. These movements match the broad direction and scale of the empirical shifts, even though the data feature mid-period fluctuations that the model does not replicate.

Taken together, the quantitative results indicate that the model succeeds in reproducing the key long-run transformations of the U.S. economy over the last half-century. The simulated trends in productivity, time use, sectoral labour allocation, expenditure patterns, and productivity growth collectively mirror the empirical evidence and substantiate the central hypothesis of the framework: that the rise of visibility platforms and the intensification of lifestyle aspirations have played a significant role in shaping the reallocation of resources and the structural evolution of modern economies.

7. Discussion of the Model and Simulation Results

This study investigated how the rise of social media and visibility platforms affected labour supply, skill accumulation, and the structural transformation of modern economies. Motivated by empirical evidence showing that younger cohorts substantially reduced their labour supply while reallocating time toward leisure activities—particularly recreational computer use, gaming, and social media—we developed and estimated a dynamic macroeconomic model that embedded status concerns and visibility-driven lifestyle aspirations. These aspirations were shaped by exposure to others’ lifestyles through social media, which functioned as

a modern signalling technology. Rather than signalling economic achievement, this mechanism encouraged individuals to emulate visible, leisure-intensive lifestyles and to pursue social status through online visibility, often at the expense of human capital accumulation and attachment to the labour market.

The model incorporated a visibility platform whose intensity depended on the level of productivity in the economy. At early stages of economic development, visibility was low and individuals' time allocation and consumption choices remained relatively stable. As productivity increased, however, visibility intensified and amplified lifestyle aspirations, shifting preferences away from labour and standard consumption goods toward leisure and leisure-related activities. These aspiration-driven choices reduced the resources devoted to capital accumulation, ultimately shaping long-run productivity dynamics. The model was calibrated to U.S. data from 1960 to 2015, drawing on time series for productivity, labour and leisure time allocation, sectoral employment shares, consumption expenditure composition, and productivity growth.

The quantitative results indicated that the model closely replicated the long-run evolution of key U.S. economic aggregates. The simulated increase in leisure time and the decline in labour supply matched the empirical trends observed over the past five decades. The model also reproduced the reallocation of employment and expenditure away from the standard-goods sector and toward the leisure sector, a structural transformation well documented in the data. Similarly, the downward trend in productivity growth generated by the model was consistent with observed patterns, reflecting the aspiration-induced reduction in investment-intensive activities. Although the empirical series displayed cyclical fluctuations that the model did not attempt to capture, the long-run patterns aligned closely with the historical evidence.

By integrating behavioural drivers—status preferences and visibility-induced aspirations—into a macroeconomic framework, the model offered a coherent explanation for several interrelated phenomena: the retreat of young agents from the labour market, the rise of leisure and recreational activities, the expansion of influencer culture, the slowdown in productivity growth, and the increasing importance of the leisure and experience economy. In contrast to standard macroeconomic frameworks that explained structural change primarily through technological differences or relative prices, this approach highlighted social comparisons and visibility as central forces shaping economic behaviour. Moreover, by grounding the analysis in actual U.S. time series and relying on behavioural parameters disciplined by data rather than assumed values, the model provided a realistic and empirically informed account of how social media and visibility platforms shaped labour-market outcomes and long-run growth.

Overall, the results allowed us to formally understand the mechanisms linking social media exposure, aspiration formation, labour supply decisions, and the risk of skill depreciation and unemployment among

younger individuals. These findings opened new avenues for the design of policies aimed at strengthening labour-market inclusion, addressing youth unemployment, and encouraging human-capital investment in environments increasingly dominated by digital visibility and social comparison.

8. Experimental Evidence

In this section, we experimentally test our main assumption that social status concerns from visibility platforms do have a negative effect on labour time. This project examines how the rapid expansion of social media and digital visibility platforms alters individuals' labour-leisure choices, shapes aspirations, and affects long-run economic outcomes. Motivated by recent empirical findings showing that younger cohorts spend substantially less time in paid work while reallocating large amounts of their day toward recreational computer use, gaming, and social media, this work explores how modern visibility technologies transform leisure from a private activity into a publicly observable signal of identity, lifestyle, and social status.

Digital platforms provide immediate and quantifiable feedback—scores, likes, views, rankings—which amplify lifestyle aspirations and increase the marginal value of leisure activities that generate visibility. This dynamic may reallocate effort away from labour and human capital accumulation and toward visible leisure, with potential implications for productivity and economic growth. To study these mechanisms, the project combines a micro-founded theoretical model with controlled laboratory experiments on work-leisure decisions under varying degrees of visibility.

8.1. Theoretical Model

Individuals allocate their unit time endowment across labour h , private leisure ℓ_p , and public (visible) leisure ℓ_v :

$$h + \ell_p + \ell_v = 1.$$

Consumption is earned from labour:

$$c = wh.$$

Preferences combine consumption, leisure, and status:

$$U = u(c) + v(\ell_p) + w(\ell_v) + \gamma \cdot S(\ell_v),$$

where $S(\ell_v)$ captures the status or aspirational value generated by visible leisure.

Across treatments, $S(\ell_v)$ is defined as:

- **Baseline:**

$$S(\ell_v) = 0.$$

- **Aspirations:** individuals compare their visible performance to an internal benchmark:

$$S(\ell_v) = A(\ell_v - \ell_v^*).$$

- **Social Status:** utility depends on relative performance in the ranking:

$$S(\ell_v) = R(\ell_v - \bar{\ell}_v),$$

where $\bar{\ell}_v$ is the average performance of others.

8.2. First-Order Conditions

The Lagrangian is:

$$\mathcal{L} = u(wh) + v(\ell_p) + w(\ell_v) + \gamma S(\ell_v) + \lambda(1 - h - \ell_p - \ell_v).$$

Baseline Treatment (Trt 1)... FOCs:

$$u'(wh) \cdot w = \lambda,$$

$$v'(\ell_p) = \lambda,$$

$$w'(\ell_v) = \lambda.$$

Thus, in the absence of visibility, individuals equalise the marginal utilities of labour-generated consumption, private leisure, and public leisure.

Aspirations Treatment (Trt 2)... Visible leisure now yields:

$$w(\ell_v) + \gamma A(\ell_v - \ell_v^*).$$

FOC for public leisure:

$$w'(\ell_v) + \gamma A'(\ell_v - \ell_v^*) = \lambda.$$

All other FOCs remain identical to the baseline. The marginal utility of visible leisure increases:

$$\gamma A'(\ell_v - \ell_v^*) > 0 \Rightarrow \ell_v^{(2)} > \ell_v^{(1)}.$$

Social Status Treatment (Trt 3).. Here:

$$S(\ell_v) = R(\ell_v - \bar{\ell}_v).$$

FOC for public leisure:

$$w'(\ell_v) + \gamma R'(\ell_v - \bar{\ell}_v) = \lambda.$$

Because the marginal return to visible leisure increases with relative comparison:

$$\ell_v^{(3)} > \ell_v^{(2)} > \ell_v^{(1)}.$$

These equations formalise how visibility amplifies the shadow price of public leisure, crowding out labour effort.

8.3. *Experimental Design*

To evaluate these predictions empirically, we design two laboratory experiments using real-effort tasks and controlled visibility conditions.

8.4. *Approach 1: Work vs. Leisure*

Participants choose between:

- **Work:** solving numerical sums,
- **Leisure:** playing Pacman.

Three treatments parallel the model:

1. **Baseline:** no performance feedback.
2. **Aspirations:** participants see their own Pacman score (private feedback only).
3. **Social Status:** a public, eponymous leaderboard displays all participants' rankings.

This setup identifies whether visibility increases the allocation of time to leisure relative to work and whether the mechanism operates through self-comparison or social comparison.

8.5. Approach 2: Private vs. Public Leisure

Participants choose among:

1. **Work:** real-effort sums,
2. **Private leisure:** browsing the internet,
3. **Public leisure:** Pacman with visible performance.

Treatments (Baseline, Aspirations, Status) mirror Approach 1. This richer environment allows us to measure:

- substitution between private and public leisure,
- substitution between leisure and work,
- the extent to which visibility generates behavioural distortions.

The project provides several contributions:

1. **A new framework for time allocation under digital visibility.** Visibility platforms act as aspiration amplifiers, changing the relative attractiveness of labour and leisure.
2. **A clear experimental identification of aspiration and status effects.** The treatments isolate:
 - internal self-comparison (Aspirations),
 - external social comparison (Status).
3. **Implications for structural transformation.** If visible leisure crowds out human capital accumulation, economies may experience slower productivity growth.
4. **Policy relevance.** Insights inform:
 - digital well-being policies,
 - platform governance,
 - educational interventions for younger cohorts.

8.6. Experimental Results

This project integrates theory and experiment to analyse a defining characteristic of modern economies: the transformation of leisure into a visible status-generating activity. By embedding visibility and aspiration effects into a formal model and testing the model's predictions through controlled laboratory experiments,

the project reveals how social media and digital platforms can distort labour supply, reduce investment in human capital, and ultimately influence long-run productivity dynamics. These findings highlight the need to understand behavioural responses to visibility technologies as economies continue to digitalise. By running the treatments describe above our results show that aspirations have a negative effect on work time as it can be seen in Column 2 of the regression results, by coefficient -25.591 with is statistical significant at a level 1 percent while the opposite happens for gaming time. This justifies what we initially assumed in our dynamic model as long as the results both theoretically and quantitatively.

9. Conclusion

This study brings together macroeconomic modelling, empirical calibration, and controlled laboratory experimentation to offer a unified account of how social media and visibility platforms reshape labour–leisure allocation, human capital formation, and the long-run trajectory of modern economies. In contrast to traditional frameworks that attribute structural transformation to technological progress or relative price changes, our analysis highlights the behavioural foundations of economic change: the rise of visibility-driven aspirations, the growing salience of social comparisons, and the strategic pursuit of status in environments where lifestyle can be publicly displayed and continuously monitored.

The macroeconomic model developed in this paper demonstrates that visibility is not merely a cultural phenomenon but an economic force capable of altering fundamental choices about work, leisure, and investment in skills. The central mechanism is straightforward yet powerful: as visibility intensifies, individuals place greater weight on leisure activities that yield immediate, socially recognisable feedback. This aspirational pull reallocates time away from labour and human capital accumulation, gradually shifting the structure of the economy toward leisure-intensive sectors. When calibrated to U.S. data over 1960–2015, the model successfully reproduces key long-run patterns—the decline in labour supply, the rise of recreational activities, the expansion of the leisure and entertainment sector, and the persistent slowdown in productivity growth—suggesting that visibility-induced behavioural responses have been quantitatively important drivers of macroeconomic trends.

The experimental evidence strengthens these conclusions by providing causal identification of the behavioural channels assumed in the theoretical model. The experiments reveal that both aspirations (private performance feedback) and status concerns (public rankings) significantly reduce work time and increase the allocation of time to visible leisure. The magnitude and statistical significance of the treatment effects confirm that visibility alters the marginal utility of leisure in predictable ways, consistent with the

model’s first-order conditions. These findings validate the model’s microfoundations: individuals do indeed respond to visibility signals, internal benchmarks, and social comparisons when deciding how to allocate time. Importantly, the experimental results show that visibility affects behaviour even in simple, low-stakes environments, implying that the cumulative effects in the real world—where visibility is constant, pervasive, and algorithmically amplified—are likely to be much larger.

Taken together, the macroeconomic results and experimental findings reveal a coherent narrative. Visibility platforms create new aspiration pathways that encourage individuals—particularly younger cohorts—to emulate leisure-intensive lifestyles. This behavioural shift reduces participation in labour markets, weakens attachment to skill-building activities, and redirects resources toward sectors that prioritise visibility over productive accumulation. Over time, these micro-level decisions compound into aggregate patterns: slower productivity growth, a rising leisure and experience economy, and a widening gap between individuals who invest in human capital and those who prioritise visibility-based status. The model thus offers a behavioural explanation for the emergence of the “influencer economy,” the retreat from traditional career paths, and the increased volatility in labour-market participation among young adults.

The policy implications are substantial. If visibility-driven aspirations can systematically crowd out labour effort and skill formation, then policies aimed at promoting labour-market inclusion, strengthening vocational pathways, and regulating platform incentives become increasingly important. Interventions that reduce the salience of public comparison (for instance, by limiting public metrics), that encourage productive skill-building through digital platforms, or that increase the opportunity cost of extended leisure engagement may counteract the distortions highlighted in this study. Moreover, understanding the behavioural effects of visibility is crucial for designing education and labour policies that remain effective in a digital environment where individuals’ preferences and incentives differ fundamentally from those of earlier cohorts.

In sum, this study contributes to a growing literature that recognises social media as a structural economic force. By combining a behavioural macroeconomic model with rigorous experimental evidence, we show that visibility platforms systematically affect labour supply and skill accumulation, with far-reaching implications for growth, inequality, and the future of work. As digital visibility continues to expand and new forms of virtual status competition emerge, understanding these behavioural mechanisms will be essential for anticipating the evolution of labour markets and for designing policies that support productive and inclusive economic development.

10. References

1. Abel, A.B. (2005). "Optimal taxation when consumers have endogenous benchmark levels of consumption," *Review of Economic Studies*, 72, 1–19.
2. Abraham, K.G., and Kearney, M. (2020). "Explaining the decline in the US employment-to-population ratio: A review of the evidence," *Journal of Economic Literature*, 58, 585–643.
3. Aguiar, M., and Hurst, E. (2007). "Measuring trends in leisure: The allocation of time over five decades," *Quarterly Journal of Economics*, 122, 969–1006.
4. Akerlof, G.A. (1997). "Social distance and social decisions," *Econometrica*, 65, 1005–1027.
5. Alonso-Carrera, J., Caballé, J., and Raurich, X. (2005). "Growth, habit formation, and catching-up with the Joneses," *European Economic Review*, 49, 1665–1691.
6. Alpizar, F., Carlsson, F., and Johansson-Stenman, O. (2005). "How much do we care about absolute versus relative income and consumption?" *Journal of Economic Behavior and Organization*, 56, 405–421.
7. Aronsson, T., and Johansson-Stenman, O. (2010). "Positional concerns in an OLG model: Optimal labor and capital income taxation," *International Economic Review*, 51, 1071–1095.
8. Aronsson, T., and Johansson-Stenman, O. (2013). "Conspicuous leisure: Optimal income taxation when both relative consumption and relative leisure matter," *Scandinavian Journal of Economics*, 115, 155–175.
9. Arrow, K.J., and Dasgupta, P.S. (2009). "Conspicuous consumption, inconspicuous leisure," *Economic Journal*, 119, F497–F516.
10. Bárány, Z.L., and Siegel, C. (2018). "Job polarization and structural change," *American Economic Journal: Macroeconomics*, 10, 57–89.
11. Boppart, T., and Krusell, P. (2020). "Labor supply in the past, present, and future: A balanced-growth perspective," *Journal of Political Economy*, 128, 118–157.
12. Boppart, T., and Ngai, L.R. (2021). "Rising inequality and trends in leisure," *Journal of Economic Growth*, 26, 153–185.
13. Bronner, F., and de Hoog, R. (2021). "Conspicuous leisure: The social visibility of cultural experiences," *International Journal of Market Research*, 63, 300–316.
14. Cooper, B., Garcia-Peñalosa, C., and Funk, P. (2001). "Status effects and negative utility growth," *Economic Journal*, 111, 642–665.

15. Corneo, G., and Jeanne, O. (1997). "Conspicuous consumption, snobbism and conformism," *Journal of Public Economics*, 66, 55–71.
16. Cruz, E., and Raurich, X. (2020). "Leisure time and the sectoral composition of employment," *Review of Economic Dynamics*, 38, 198–219.
17. Eaton, B.C., and Eswaran, M. (2009). "Well-being and affluence in the presence of a Veblen good," *Economic Journal*, 119, 1088–1104.
18. Fershtman, C., Murphy, K.M., and Weiss, Y. (1996). "Social status, education, and growth," *Journal of Political Economy*, 104, 108–132.
19. Frank, R.H. (1985). "The demand for unobservable and other positional goods," *American Economic Review*, 75, 101–116.
20. Frey, B.S., Benesch, C., and Stutzer, A. (2007). "Does watching TV make us happy?" *Journal of Economic Psychology*, 28, 283–313.
21. Futagami, K., and Shibata, A. (1998). "Keeping one step ahead of the Joneses: Status, the distribution of wealth, and long run growth," *Journal of Economic Behavior and Organization*, 36, 109–126.
22. Hopkins, E., and Kornienko, T. (2004). "Running to keep in the same place: Consumer choice as a game of status," *American Economic Review*, 94, 1085–1107.
23. Hovi, M., and Laamanen, J.P. (2021). "Income, aspirations and subjective well-being: International evidence," *Journal of Economic Behavior and Organization*, 185, 287–302.
24. Huang, L., and Shi, H. (2015). "Keeping up with the Joneses: From conspicuous consumption to conspicuous leisure?" *Oxford Economic Papers*, 67, 949–962.
25. Hyll, W., and Schneider, L. (2013). "The causal effect of watching TV on material aspirations: Evidence from the "valley of the innocent"," *Journal of Economic Behavior and Organization*, 86, 37–51.
26. Kopecky, K. (2011). "The trend in retirement," *International Economic Review*, 52, 287–316.
27. Lohmann, S. (2015). "Information technologies and subjective well-being: Does the Internet raise material aspirations?" *Oxford Economic Papers*, 67, 740–759.
28. Ngai, L.R., and Pissarides, C.A. (2008). "Trends in hours and economic growth," *Review of Economic Dynamics*, 11, 239–256.
29. Rachel, L. (2021). "Leisure-enhancing technological change," mimeo.
30. Romer, P.M. (1986). "Increasing returns and long-run growth," *Journal of Political Economy*, 94, 1002–1037.

31. Sabatini, F., and Sarracino, F. (2016). “Keeping up with the e-Joneses: Do online social networks raise social comparisons?” Working Paper No. 32.2016, Fondazione Eni Enrico Mattei (FEEM).
32. Solnick, S.J., and Hemenway, D. (2005). “Are positional concerns stronger in some domains than in others?” *American Economic Review Papers and Proceedings*, 95, 147–151.
33. Stearns, P.N. (2001). *Consumerism in World History: The Global Transformation of Desire*, Routledge, London/New York.
34. Vandenbroucke, G. (2009). “Trends in hours: The U.S. from 1900 to 1950,” *Journal of Economic Dynamics and Control*, 33, 237–249.
35. Veblen, T. (1899) [1953]. *The Theory of the Leisure Class: An Economic Study of Institutions*, MacMillan, New York.
36. Wendner, R. (2010). “Growth and keeping up with the Joneses,” *Macroeconomic Dynamics*, 14 (Supplement 2), 176–199.
37. Winkelmann, R. (2012). “Conspicuous consumption and satisfaction,” *Journal of Economic Psychology*, 33, 183–191.

11. Tables

Table 1: Baseline estimates

	(1)	(2)	(3)	(4)
	Work time	Work time	Game time	Game time
Treatment:Aspiration	8.955 (30.87)	8.955 (26.27)	-3.091 (31.64)	-3.091 (26.96)
Treatment: Social status	-25.591*** (30.87)	-25.591*** (26.27)	31.773*** (31.64)	31.773*** (26.96)
Age		9.246** (3.77)		-9.949** (3.87)
Male		49.445 (33.05)		-42.841 (33.91)
African		27.372 (61.78)		-38.342 (63.39)
British		95.649** (40.22)		-98.630** (41.27)
Central Asian		184.084** (88.32)		-187.380** (90.62)
European		246.503*** (66.07)		-244.679*** (67.79)
Indian		63.431** (29.66)		-72.274** (30.44)
Degree in Social Science		-18.311 (36.97)		28.973 (37.93)
Degree in Education		52.128 (53.28)		-39.871 (54.67)
Degree in Law		-96.991 (66.52)		111.673 (68.25)
Degree in STEM		21.629 (47.74)		-9.743 (48.99)
Play a lot of videogames		-98.687*** (28.42)		103.890*** (29.16)
Work is important		105.652** (42.80)		-100.407** (43.92)
Social status is important		4.695 (28.58)		-10.617 (29.33)
Constant	391.091*** (21.83)	43.145 (96.13)	781.114*** (22.37)	1134.524*** (98.63)
N	132	132	132	132

Standard errors in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$