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Urban and Regional Planning During and Post Covid-19: Challenges, Opportunities and Lessons

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Abstract

The aim of the paper is to discuss the challenges, opportunities and lessons for town planners in the pre and post COVID-19 pandemic crisis. Review method was adopted by using literatures, internet and available documents. The impact of the global pandemic is still gloomy but may affect the cities physically, economically, socially now and future generations. Official town planning process began in Nigeria following several public health legislations as such some states used the colonial public health regulations like Quarantine Act of 1926 and the public Health Law of 1917 in addressing COVID-19 pandemic in 2020. Broader thinking points of opportunities for Pre and post-COVID 19 recovery of human interaction and city life include; focusing on sustainable goals, multi-functional places design, planning urban realm at a local level, supporting human connectivity and delegation of decision. Planning challenges influenced by COVID-19 are; cities densities, informal settlements, housing and public spaces, city-regional planning, social infrastructure provision and future defensive designs. The lessons for urban governance include; unique thinking about cities and health, global urban governance systems; addressing informal settlement inequality, regular update of crisis-information, public-health digital change promoting teleworking and web-based community. Rethink of urban planning require shift from top-down to bottom-up approach, capacity building and full implementation of relevant laws. The paper recommends that, the Pandemic responses should be buttressed by an urban-planning system equipped with

adequate data on the population densities, households, vulnerable areas, social centres functional sanitation facilities and physical infrastructure.

Key Words: COVID-19, Pre/post COVID-19, Urban and Regional Planning, Challenges, Opportunities, Lessons

Introduction

Urban and regional planning also known as physical planning is both science and arts constituting multi-disciplinary and interdisciplinary course. Physical planning draws upon expertise of wide kinds of fields that resolves issues that affects the places where we live , shop, work and recreate for tangible and intangible reasons. Planning according to Lawanson, (2020), requires all aspect and implication of physical development of land taken into consideration and titled into a pattern devised with the object of making a region or a community as a whole into an effective and within limits, self-settlement for sustained organism. Aspiring settlement for sustainable living as the function of a successful planning need to experience:

- Promotion of accessibility to home, work, shops, schools recreation power among others.
- Employment of resources as economically as possible to achieve development or improvement;
- Carrying out of all developments in visually pleasant manner using best practices.

The coronavirus also known as China Originated Virus in December 2019 (COVID-19) has placed the fate of millions of small businesses and workers in urban areas dangling in the air. The impact of the global pandemic is still gloomy but it is obvious that the crises will affect the cities physically, economically, socially and may extends to several generations to come. The coronavirus crises has already altered urban life significantly. The population in circulation has reduced to unprecedented low number (Berg, 2020).

The Coronavirus disease (known as COVID-19, caused by the virus SARS-CoV-2), first identified in December 2019 in China, is now sweeping across countries and cities, driving global mobility and supply chains to a standstill with ripple effects that few would have predicted just months ago.

In many countries, COVID-19 has, at least temporarily, changed the face of cities and fundamentally affected the discussion of how we should manage urban life in the wake of the pandemic. The current crisis has ushered in talk of states of exception, unique measures, and

unprecedented moves in cities and countries the world over.

COVID-19 outbreak has significantly impacted transport and mobility. Government at all levels had announced several measures to restrict movement and social gathering as well as prescribing that people should maintain social physical distance and personal hygiene to reduce the spread of the pandemic (Regmis, 2020). These noticeable changes have ignited a debate among rofessionals to respond to current situation and future crises.

This paper reviews the challenges, opportunities and lessons for town planners in the pre and post COVID-19 pandemic. The objectives of the paper are to: Examine the general functions of the town planning profession, explain the functions of Town Planners during and post COVID-19, Stress the challenges, opportunities, and lessons for future and Recommend possible measures for appropriate planning strategies to curb COVID-19 pandemic.

General Concept of Urban and Regional Planning

In broadest terms, urban and regional planning is the process by which communities attempt to control and/or design change and development in their physical environments. It has been practiced under many names: town planning, city planning, community planning, land use planning, and physical environment planning (Wanda, Abdullahi and Usman 2016).

Urban planning can be seen as a technical and political process concerned with the welfare of people, control of the use of land, design of the urban environment including transportation and communication networks, and protection and enhancement of the natural environment.

Objectives of Successful Planning

Town planning has the following objectives according Wanda, (et al 2016).

Promotion of accessibility: access to residential houses, places of works, commercial shopping areas, schools, recreational areas, and other land uses people go to at one time or the other.

The use of resources: Resources at our disposal are very scarce, planning therefore seeks to encourage the use of available resources as wisely as possible so as to improve standard of man's living and safeguard his future needs.

Separation of land uses: some urban land uses are compatible, that is, it can harmoniously stay together, like residential and educational land use, while others are incompatible or cannot stay together harmoniously example, heavy industrial land use and high density residential land use.

Preventions of Slum Development*:* This developed usually as a result of cost of living in large metropolis, cities or towns. Less privilege usually built in slums and

characterized by poor planning, substandard building materials, overpopulation above the planning standard as well as susceptibility to disease outbreak like diarrhea and cholera due to poor sanitary conditions. Urban and Regional Planning Tend to prevent this scenario.

Upgrading of Settlements: Human settlement is similar to living organisms lives cycle. When it reaches its old age, it tends to diminish in function. To rejuvenate the town or city, special scheme such as urban renewal, rehabilitation and redevelopment among others may be applicable. Town planning tends to safeguard the organic growth or growth without planning.

Pre and Post COVID-19 Planning in Nigeria

Official town planning process began in Nigeria following several public health legislations. The township Ordinance No 29 of 1917 was enacted to bring about spatial orderliness in Nigerian cities by establishing guidelines for physical layout of towns and cities such as Aba, Port Harcourt, Enugu, Jos, Minna and Kaduna. The ordinance paved way for European (planned) settlements separate from native (informal) settlements thereby establishing the order of socio-spatial segregation noticeable in most Nigerian urban centres today. The 1920s Bubonic Plague resulted to the promulgation of the Lagos Town planning Ordinance Cap 95 of 1928 and the establishment of the Lagos Executive Development Board changed with the responsibility of housing/resettlement schemes and slum clearance (Lawanson, 2020). Consequently, decisions on urban planning and development were being based on public health matters. Recently, Kaduna state government used the colonial public health regulations which are the Quarantine Act of 1926 and the public Health Law of 1917 in addressing COVID 19 pandemic in 2020, similarly, the Lagos state government efforts to contain coronavirus is similar to those used in the 1920s by the colonial authorities to stem the spread of the Bubonic plague, i.e. restrictions on movement, disinfection of public spaces and better household hygiene.

According to Eisenstein (2020), as lockdown continues in the bid to contain COVID-19, it is clear in the near future that; it will be critical in defining how cities will operate in the future. As cities enter a social distancing reality, many of the critical urban infrastructure systems such as public transport, utilities or rivers and parks, will need to adjust to this new normal and operate differently to satisfy health measures. At the same time, those systems will need to be kept somewhat economically viable so that they can maintain operation during a critical reduction in their productivity.

In times of crisis, or prosperity - infrastructure has always been fundamental to overcoming challenges, addressing local community needs as well as planning for long term growth. In fact, the power of infrastructure is so strong, that in the past decades we even see redundant pieces of infrastructure bringing a newly found character to

urban areas, with projects such as the highline in New York revealing the beauty in infrastructure and becoming catalysts for place making and wider urban change.

Sustainable Pre and Post-COVID -19 Recovery Opportunity

The following points according to Eisenstein (2020), examine broader thinking of opportunities of how urban plans can help to kick-start a sustainable Pre and post-COVID 19 recovery and also resurrecting human interaction and bring back the much needed city life:

Focusing on Sustainability Goals

Before the COVID-19, many cities had embarked on several city-wide planning projects and initiatives to ensure greater sustainable future. For instance, Copenhagen declared an ambitious target of achieving carbon neutrality by 2025. Bristol, building on their declaration of a climate emergency in 2018, declared an ecological emergency in response to the growing threats to ecosystems and biodiversity. Paris launched the 15-minute city plan, investing in local neighbourhoods with a target that every resident can reach necessary amenity, employment, retail or public transport within a 15-minute walk. The current restrictions on city life and the ability to revive economic activities gradual, COVID-19 avails an opportunity to think broadly to build substantially on achieving sustainability goals. As being noticed clearly in the recent months, cleaner air, wildlife visibility in cities, reduced noise, slow movement and consideration for others, implies that we have a glimpse of 'a sustainable future'(Eisenstein, 2020).

However, with the economy meltdown, post-COVID changes will bring about huge cost of living on everybody. Note that, sustainability require plans to go in agreement with the economy and the environmental benefits to ensure delivering of significant social and economic growth. This case is not obtainable in the present situation as many cities started lifting lockdown restrictions, the levels of hardship seen across the globe, may outweigh the environmental benefits COVID-19 had caused.

Designing Multi-Functional Places

Design response to the challenges posed by COVID-19 signified that it is possible to achieve multiplicity of function within larger, critical structures, even if only temporarily. Large facilities that are supported by optimised logistics systems such as Convention centres were turned into hospitals within days, stadiums serve as large community kitchens supporting local communities and front-line workers and, in some places, these are also transformed into open air schools. Despite the different reasons for not designing buildings for multiple functions or flexibility of programme (usually attributed to reasons such as cost, time, land ownership, governance or others technical

reasons) in times of crisis, these were quickly put to one side with the focus on using the space for the most relevant need at the time.
We need to work as a team to find ways to overcome hindrances which can sometimes restrict the delivery of much better result, shaping better cities. The complexity of leaderships, funds, landownership and scale, implies a harder task than 150 years past. Notwithstanding, we currently have more sophisticated knowledge, systems and the technology to balance these issues and work collectively to ensure a post-COVID-19 sustainable future (Eisenstein, op.cit.).

Planning Urban Realm at a Local Level

When the lockdown is lifted and the economy revives to its normal shape, local neighbourhoods will turn to 'stay safe' mode, with key streets safeguarded and safety routes planned to access key daily destinations. Schools, daily groceries and amenity, workplaces and public transport hubs, will all need routes planned carefully to provide safe space and access under social distancing requirements.
For example, when transforming streets to work around cyclists and pedestrians, we need to also consider what happens beyond the 'back of pavement' line as the street hits the edge of buildings. Even during recovery, whilst social distancing measures are in place, this is a great opportunity to extend the public realm even further and bring public services into ground floors of buildings along high street, as in many places these are already empty. These spaces can be used as community bicycle parking (like in the Netherlands or Switzerland), pop-up school classes to fill-in on schools' limited capacity closer to people's homes, improved cultural offering or even for COVID-19 related local health facilities in case these are needed.

Supporting Human Connectivity

It is hard to imagine cities without gathering. Full beaches and parks during summertime, crowds filling large stadiums or concert halls, churches, mosques, bus stops and railway stations at rush hour which are human interactions that are considered as the lifeblood of city life.
At the lifts of the lockdown, the way in which people interact and gather will dramatically change. It is obvious that urban gatherings which is unavoidably absent during COVID-19 pandemic will return and human interaction will remain central to our lives as usual. Even though the society is heavily relying on technology during the lockdown period, digital life can't really replace the reality. Social interaction is a basic need and is crucial to our mental health hence we must focus on the provision in our plans.

Delegation of decisions to zonal Town planning officers

As meetings of local government representatives made more difficult, councils can delegate some decisions to zonal Leaders such as councilors, directors and

executives. Zonal town planning officers need to take further steps and have delegated planning decisions to local government or district planning officers.

Covid-19 and Town Planning Challenges

Some of the planning challenges currently and perhaps into the future influenced by COVID-19 are as follows:

Challenges of cities density

The November 2020 updates on death rates from COVID-19 based on urban density in US are displayed in Figure 1 below. Covid-19 infections and deaths seems to be associated with urban densities. This is may not be due to higher population density but difficulty to avoid higher exposure densities, as the intensity and duration of risky contacts is likely to be more. These settlement are mostly characterized by notable overcrowding, insufficiently ventilated enclosed spaces, among which are elevators, transit, offices and public buildings (Cox, 2020).

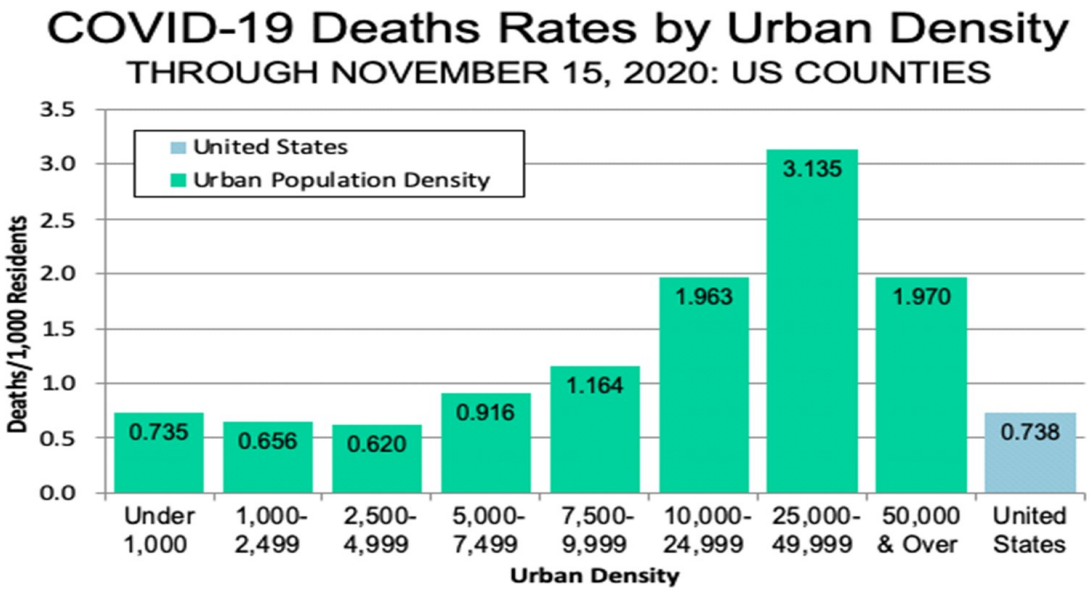


Figure 1
Source: Cox, 2020

Challenges of informal settlements

Analysis about cities affected by Ebola in West Africa revealed that there was little information about the household numbers and borders of the informal settlements in dense layouts prior to the outbreak of the virus. This lack of information not only affected quarantine measures, but also testing and planning for health infrastructure to curb infection rates. Poor infrastructure and a lack of WASH (Water, Hygiene, and

Sanitation) services in these settlements further deprived the residents and increased their vulnerability to the spread of the disease.

Over a billion people are currently living in informal settlements and slums in cities worldwide, without appropriate WASH facilities. An estimated 3 billion people will require adequate and affordable housing by 2030. According to a 2016 Water Aid report, India ranks first for having the highest number of urban dwellers living without a safe, private toilet. Out of 381 million people in urban areas, 157 million have no access to proper sanitation and an estimated 41 million of these have no choice but to defecate in the open.

Challenges of housing and public spaces

How we plan our cities determines to a large extent how resilient they are. Population density without adequate public spaces or proper affordable housing provision may lead to serious challenges. This was the reason many housing laws and regulations were implemented in Europe at the beginning of the 20th century, halting many diseases, for example. COVID-19 may prompt changes too, from temporary measures that make it feasible for people to follow social distancing guidelines to more lasting changes that should focus on improving access to affordable housing and public space by improving public spaces in informal settlements (Chennai, 2015).

Challenges of city-regional planning

What happens in cities does not stay in cities. The cascading economic effect of this crisis will impact supply and production chains in surrounding regions and ripple out into global networks too, as we are already seeing. We should learn from this unprecedented disruption to better plan for the next crisis. We need more integrated city-regional planning around economies, energy provision, transport networks and food production so that these networks can become pillars of resilience rather than weak points.

Challenges of social infrastructure provision in cities

A McKinsey Report on the impact of COVID on the service industry shows that while the airlines industry has grounded planes and reduced its handling and maintenance activities, its customer-care centers have been extremely busy. Similarly, while branches of physical retail banks are reducing working hours, work in the call centers is booming.

This suggests that COVID-19 will lead to a new form of jobs, in order to design a city life that fits social distancing norms. Helplines for health professionals, sanitation and hygiene committees for industries that depend on physical and human contact, and new nodal authorities for migrant-management in cities have already sprouted. These

jobs will be essential in attempting to curb the negative impacts we have witnessed from the pandemic today.

Challenges of the future of defensive designing

Defensive designing of cities has already been in vogue, as it aims to curb loitering, prevent crime and destruction of public property by designing 'defensive infrastructure' keeping public discomfort and inconvenience in mind. The future of such designing will include 'social distancing' in its reasoning, keeping public convenience in mind this time.

According to the US Department of Housing and Urban Development, NYC has nearly 80,000 homeless people living in wither shelters of the street. According to the 2011 census, there are 1.77 million homeless in India of which 57,416 stay in Mumbai. If urban planners and administrative officials want public spaces to be vagrant-free, it is essential for these large numbers to be provided appropriate rehabilitation in the form of shelters with adequate amenities and provisions.

COVID-19 lessons for the future

According to Acuto (2020), the COVID-19 crisis has changed the face of many of our cities and questioned how we should manage urban life in the wake of a pandemic. Acuto (2020) Commentary points to the need to learn urban governance lessons and to the potential value of urban experimentation in crisis as noted below.

- The impact of the coronavirus will uniquely drive a change in the way we think about cities and health. Coronavirus is not a strange occurrence because in 2003, severe acute respiratory syndrome (SARS) followed a very similar path to global contagion and fell just short of the current impact of COVID-19.
- The majority of crisis such as the COVID-19, 2009 H1N1 swine flu, 2014 Ebola and the 2016 zika outbreak lead to learning key lessons in both global and urban governance. SARS taught us to better understand how our international system is centered on global cities and how, through their planetary connections, epidemics can go global.
- Another lesson to note is that, although most stark in informal settlements, inequalities are not restricted to the Global South. Globally, nearly two billion people have poor or no access to adequate sanitation, and more than 150million are considered homeless.
- Inequalities permeate urban society and introduce a further layer of complexity to managing pandemics—this is already evident in the current crisis in that concerns regarding housing evictions in major cities were flagged at the beginning of March 2020.The challenge is clearly formidable, but with

a better understanding of urban governance, having more people in less space does not necessarily equate risk.

- Emergency notification, advice, and health-check apps, as well as WhatsApp-based information bots, have also become a regular feature. These could be leveraged to drive a more risk-literate urban citizenry in the longer term, just like health and prevention measures could provide the foundation for better sanitation practices across cities.
- Appreciating how tacit networks of mutual care of the ‘‘haves’’ and ‘‘have nots’’, and the informal governance of our cities, work is a critical step at this time. Therefore it is fundamental for local and national governments to understand the extent of the urban experimentation afoot at present in urban areas worldwide, and temporary measures can teach us a great deal about the possibilities for reform. Mobility limitations have, for instance, blatantly put in check transport related emissions to the tune of 25% reduction in China and Italy alike, which speaks volumes for the radical efforts to curb our greenhouse gas impact on the atmosphere.
- The digital response to what has already been tagged by the WHO as the most ‘‘information-intensive’ ’public-health crisis of modern times has been a treasure trove of digital change promoting teleworking, web-based community building, virtually delivered services, and 3D printing of essentials ranging from test swabs in the US to ventilators in Italy.

COVID-19: An Opportunity to Rethink Urban Planning

Urban vulnerabilities amplified by the COVID-19 present an opportunity for a fresh consideration of urban planning approaches in Nigeria (Lawanson, 2020).

In the immediate term, there is need to transit from generalist top-down planning to more ground localised planning. This can be achieved through the resuscitation of the local planning authorities and empowering them to prepare lower order plans to guide the development of local communities. These plans can then propel inclusive and sustainable upgrading of informal communities, using various strategies from phased *in situ* upgrading requiring minor improvements (such as community taps, paved roads and street lighting) to comprehensive regeneration (involving partial clearance of existing structures to rationalise layouts, reconstruction of some houses and the provision of extensive public infrastructure and services including schools and healthcare centres.

Lawanson (2020) further explains that, in the medium term, the capacity of state planning agencies to deliver on their planning mandate can be enhanced. The immediate domestication of the National Urban and Regional Planning law in all states of the federation is key. The staffing and training of personnel in the various ministries and agencies is also necessary. Finally, steps should be taken to establish the National

Urban Planning Commission to guide the policy thrust of urban development at the national scale.

To determine how the pandemic will change our cities long-term is gloomy because so many factors are still unknown which are related to health and how the virus will develop as well as the way in which cities and governments will respond.

As cities, industry and governments begin to make initial plan towards recovery, common actions globally seem to form consensus. Although reactions will vary, it is clear that 'going back' will be fruitless. Cities have always been resilient to crisis and evolved as a response to it. Lesson from the past crisis should give us confidence that urban life and human interaction will remain, and cities will continue to thrive. In as much we want our siblings, to have a better future, we need to use this pandemic as an opportunity to put climate action and efforts to tackle inequality for better recovery.

Conclusion

The coronavirus also known as China Originated Virus in December 2019 (COVID-19) has placed the fate of millions of small businesses and workers in urban areas dangling in the air. CPVID-19 crisis may affect towns and cities physically, economically, socially and may extend to generations in due course. Official town planning process began in most countries including Nigeria following several public health legislations. To kick-start a sustainable pre and post COVID-19 recovery and also resurrecting human interaction and bring back the much needed city life, sustainable goals, multi-functional places design, human connectivity and planning at local level are paramount. City densities, informal settlements, housing, defensive designs and social infrastructure provision are notable challenges. COVID-19 lessons for the future include change in our thinking about cities and health, such as inequality in informal settlements, emergency health-check apps to drive a more risk-literate urban citizenry, reform possibilities and digital response as described by WHO as the most "information-intensive". Adopting bottom-up by planning authorities to upgrade informal settlements and services improvement are immediate measures while capacity building for town planners is medium. Up-to-date data on poverty profile of informal and as well formal settlements population is mandatory for determining funds required for palliatives.

Recommendations

Based on the findings of this paper, the following recommendations are made:

- Pandemic responses must be buttressed by an urban-planning system which includes big data collection on the population, households, vulnerable areas and availability of functional sanitation facilities
- COVID-19 is suggesting a new form of jobs, therefore design a city life that fits social distancing norms already sprouting up in cities should be improved

and sustained. E.g. help lines for health professionals, industries that depend on physical and human contact, and new nodal authorities for migrant-management.

- Preparedness to stop COVID-19 should involve taking inventory of the number of people living in urban areas and information on available social infrastructures in the cities/towns to determine their adequacy and level of risk exposures.
- Concerted efforts should be made to collate up-to-date data on poverty profile of formal-informal settlements in cities/towns in order to determine the funds that will be required for palliatives.
- Planning authorities need to look into more closely the significant challenges posed by the lockdown to holding public consultations (bottom-top approach) which is a key part for the democratic process underpinning a local plan.

REFERENCES

Acuto, M. (2020).COVID-19: Lessons for urbanizing World. University of Melbourne, Parkville, VIC 3010, Australia

Berg, R.V.D. (2020). How Will COVID-19 Affect Urban Planning HYPERLINK "https://thecityfix.com/blog/will-covid-19-affect-urban-planning-rogier-van-den-berg/"?. The City Fix.

https://thecityfix.com. April 10, 2020

Budds, D. (2020). Design in the Age of Pandemics. https://www.curbed.com/ authors/ diana-budds

Cox, W. (2020). Urban density and COVID-19 Death Rates, updates November 2020 https://feed2.feedburner.com.Newgeography

Eisenstein, E. (2020).four ways cities infrastructure can support recovery post-COVID-19. Connected society. RAMBOLL INGENUITY /ɪndʒɪˈnjuːɪti/15th May, 2020.

Klaus, I. (2020). Pandemics are also urban planning problems. https://www.bloom.

Lawanson, T. (2020). COVID-19 can be Opportunity for Urban Planning in Nigeria. https://chcunilag.com/blog. May 21, 2020 8:44:00

Ratho, A. (2020). Cities and COVID19: Preparing for Pandemics. https://orfonline.org//people-Expert/aditi-ratho/ *ORF research and analyses of* Coronavirus cases as of 28th May 2020

Regmi, M. B. (2020). COVID-19 Prompts Rethinking of Mobility and City Planning. https://www.unescap.org/blog. 17th April 2020.

Wanda, M.Z., Abdullahi, H. And Usman, I. (2016). Urban and Regional Planning In the 21st Century. Paper Presented at the Maiden Edition Conference of The School of Communication and Information Technology Federal Polytechnic Mubi. Theme: "The Role Of Ict In Economic Diversification And Sustainability In The 21st Century Tertiary Education In The 21st Century"