

HOUSE No. 106

The Commonwealth of Massachusetts

PRESENTED BY:

Patricia A. Duffy

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act regulating screen time in early and K-12 education.

PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
<i>Patricia A. Duffy</i>	<i>5th Hampden</i>	<i>2/19/2021</i>
<i>Kirstin Beatty</i>	<i>149 Central Park Drive, Holyoke, MA 01040</i>	<i>2/19/2021</i>

HOUSE No. 106

By Ms. Duffy of Holyoke, a petition (accompanied by bill, House, No. 106) of Patricia A. Duffy and Kirstin Beatty for legislation to regulate screen time in early and K-12 education. Advanced Information Technology, the Internet and Cybersecurity.

The Commonwealth of Massachusetts

**In the One Hundred and Ninety-Second General Court
(2021-2022)**

An Act regulating screen time in early and K-12 education.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

1 SECTION 1. The legislature finds and declares all of the following:

2 Whereas, insuring schools or school districts set a school screen time and cellphone limit
3 requires that the community engages and agrees upon what those limits should be.

4 Whereas, the Journal of the American Medical Association published a 2019 study that
5 found high levels of screen time reduces structural integrity in key brain areas responsible for
6 literacy and language.

7 Whereas, the Massachusetts education standards mandate screen time: writing standards
8 require students “use [digital tools (e.g. computers, mobile phones, cameras)] to convey
9 messages in pictures and in words” in PreK; “explore a variety of digital tools” to write in Grade
10 1; and gather information from digital sources by Grade 3.

11 Whereas, information technology captures data for profiling, predictive analytics, and
12 crime, and addictive persuasive design influences thoughts and behavior.

13 Whereas, the content of corporate programs has often been found to reflect corporate
14 interests, be generic, and lack currency or individualization, yet EdTech is outside teacher and
15 local control.

16 Whereas, integrating software learning into every subject takes time away from other
17 subjects – software requires far too much time and energy to evaluate, regulate, learn, fix and
18 maintain.

19 Whereas, an hour of videoconferencing or streaming emits 150 – 1,000 grams of carbon
20 dioxide (a gallon of gasoline car exhaust emits about 8,887 grams), requires 2 – 12 liters of
21 water, and demands a land area about the size of an iPad Mini (Obringer et al, 2021).

22 Whereas, mandates for screen time prevent alternative learning models that may be
23 locally preferred, such as Montessori, Waldorf, or outdoor learning models.

24 Whereas, extended screen time is widely acknowledged as harmful to health due to time
25 sitting, staring, blue light exposure, magnetic and electric fields, and lack of movement.

26 SECTION 2. Chapter 69 of the General Laws is hereby amended by adding the following
27 section:-

28 School screen time and cellphone limits; end tech mandate

29 (a) Definitions. As used in this section, the following words shall have the following
30 meanings:

31 "Board" is the board of elementary and secondary education.

32 "Commissioner" is the commissioner of elementary and secondary education.

33 "Confidential data" is data collected on students or staff and which includes:

34 (1) standard identifying information:

35 i. names of staff and students

36 ii. dates of birth

37 iii. addresses

38 iv. grades

39 v. medical information

40 vi. exam results

41 vii. staff development reviews

42 viii. assessments

43 ix. other personal identifying information

44 (2) identifying data such as location-tracking, photographs, and biometric data, which

45 includes unique biological or behavioral identifiers such but not limited to voice audio,

46 fingerprints, gait recognition, and keystroke dynamics.

47 (3) personal writings or other personal work such as art

48 (4) political views

49 (5) socioeconomic data

50 (6) disciplinary data

51 (7) similar data or information on other individuals that are not students or staff, but may
52 be referenced in or extracted from student and staff data.

53 (8) observed and inferred data from the data provided

54 "Department" is the department of elementary and secondary education.

55 "Screen time" is time viewing a technological or digital screen which includes but is not
56 limited to a television, a smart board, projector, or computer.

57 "Passive screen time" is time viewing a technological or digital screen in which one only
58 observes and does not interact or alter the screen by typing or otherwise moving the body.

59 "Interactive screen time" is time viewing and interacting with or altering a technological
60 or digital screen by typing or otherwise moving the body.

61 "Virtual reality" is an interactive screen time experience taking place in a simulated
62 visual environment, either real or imagined, and may incorporate auditory and sensory feedback.
63 Augmented reality systems is a type of virtual reality in which perception of the real world is
64 augmented by computer-generated perceptual information such as visual, auditory, haptic,
65 somatosensory, and olfactory.

66 "Authority" is the authority legally invested with setting policy for a public charter
67 school, virtual school, or, in the case of a school district, the elected school committee.

68 (b) School screen time limits. Each public school authority shall set and publish a limit on
69 school screen time and cellphone use, setting limits for both interactive screen time and passive
70 screen time with input from the local community, school staff, students, and guardians. A
71 baseline for school screen time and cellphone limits is provided in subsection (e), which shall
72 apply unless the authority adopts more stringent or liberal limits. The authority must base its
73 school screen time limits on the principles defined in subsection (c) and must follow a public
74 commenting process as defined in subsection (d) for an initial and ensuing annual review. Except
75 as defined in subsection (f), any other revisions to existing school screen time limits also require
76 a public hearing.

77 Except as defined in this subsection and subsection (f), it shall be unlawful for any school
78 or teaching staff to allow a student enrolled in either public primary or secondary schools in the
79 Commonwealth to exceed screen time limits during and after school hours for school-related
80 assignments, including extra-curricular activities.

81 Except as defined in subsection (c) and (f), it shall be unlawful to require screen time as a
82 condition of public primary and secondary school required coursework or activities.

83 Nothing in this law requires the use of digital technology or screen time, nor preempts
84 more restrictive state or local limitations.

85 (c) Screen time principles. School screen time limits must be premised on educational
86 benefits to the student and safe use rather than simply convenience or savings to the educator or
87 school system. Therefore, recommendations for school screen time limits must be based on the
88 following findings:

89 (1) The educational goal cannot be as easily or as quickly be accomplished by traditional
90 educational methods which do not use screen time and the use of technology serves an
91 educational purpose;

92 (2) The specific use of screen time provides educational benefits superior to traditional
93 methods which do not use screen time;

94 (3) The selection of products, potential gateways to other platforms, and scheduling of
95 screen time is carefully considered to prevent physical, psychological, social, cultural, and
96 neurological adverse consequences, including digital addiction;

97 (4) Other than exceptions listed in subsection (f), courses and school activities revolving
98 around prolonged screen time are limited to students in grades 8 to 12, with no more than 90
99 minutes of screen time daily through grade 9 and 120 minutes of screen time daily through grade
100 12.

101 (5) Other than exceptions listed in subsection (f), children or students below grade eight
102 are not to exceed more than 5 hours of passive screen time in a month; to have no interactive
103 screen time below grade four; and from grade four through seven are not to exceed more than 1
104 hour of interactive screen time weekly.

105 (5) Students under age 16 are not to use virtual reality technology.

106 (6) Students age 16 and above are not to use to virtual reality technology without an
107 explicit opt-in form, explicit verbal warnings of potential negative effects, and, unless clear
108 scientific evidence proves safety for both mental and physical development, must limit time

109 spent in virtual reality to a maximum of 1 hour in a year expressly tied to a specific educational
110 purpose other than entertainment.

111 (8) Courses or school activities that revolve around extensive screen time are voluntary,
112 and screen time requirements in those activities highly relevant to the subject matter of the
113 course or school activity.

114 (9) Traditional forms of instruction and learning which do not use screen time are
115 preferred whenever desired by the educator or when these accomplish the task as well or
116 approximately as well.

117 (10) Technology implementation and use follows the best practices for health, safety, and
118 confidential data protection, and closes any intentional or unintentional gateway to products or
119 services with adverse impacts, such as from, but not limited to, persuasive design, distracting
120 entertainment, and data profiling.

121 (11) Use of digital technology or screen time is carefully designed by the school, teacher,
122 and support staff to insure procedures are in place, including data processing agreements, to help
123 protect confidential data and, when the purpose is fulfilled, destroy the confidential data.

124 (12) If the screen time involves voice or video recording, the careful consideration of
125 whether students or educators must be heard or visible on the screen, and whether video and
126 sound recordings can be avoided and still fulfill the educational purpose.

127 (13) Compliance with all confidential data protection requirements at the local, state, and
128 federal level.

129 (d) Public hearing decision. Except as defined in section (f), the authority must provide
130 for a public hearing during annual reviews and before setting any new screen time limits.

131 For the public hearing, each authority shall publish a public notice and shall additionally
132 inform all students, guardians, and school personnel of the hearing and commenting procedures
133 using standard protocols used by the school or school district. These notices shall provide an
134 electronic and postal address for written submissions; hearing time, date, and location; and that
135 any party with a financial interest in promoting cellphone use or screen time is to self-identify by
136 including the name of any relevant business and any product in conjunction with his or her name
137 and accompanying statement of financial interest. The public hearing shall be set at time
138 convenient to most school personnel, students, and guardians.

139 School teachers and school departments shall be provided time in school to meet as
140 departments and as a school at least three weeks in advance of the hearing in order to review and
141 discuss the proposed screen time and cellphone limits, principles, and consider recommendations
142 for submission of public comments to the authority.

143 The hearing and all written comments, including the names of the testifiers, submitted
144 shall be subject to the Open Meeting Law and written comments shall be available to the public
145 for a reasonable sliding-scale fee or freely available for review – however, one exception to this
146 rule shall be that any student, guardian, or teacher request based on personal needs shall not
147 require or allow exposure of the name of the testifier unless desired by the testifier and, if
148 relevant, his or her guardian.

149 Following the hearing and within eight weeks, the authority shall finalize and vote on the
150 cellphone and screen time limits by a vote of the majority members of the authority and shall
151 prepare a public statement of its decision.

152 The public statement must state :

153 (1) all requests for additional screen time or cellphones by parties outside of the school
154 system, excepting requests exempted under subsection (f) or (j), including for potential future
155 attendance;

156 (2) for each request for additional screen time, the relevant names of any school district
157 or school staff who made the request, excepting requests exempted by subsection (f) or (j);

158 (3) a clearly marked list of all individuals with a financial interest due to business or to
159 potential product sales that request increased screen time;

160 (4) the factual reasoning for the decisions based on the principles in subsection (c);

161 (5) how the individuals of the authority voted;

162 (6) optionally, a statement of reasons for dissent prepared by any individual(s) in the
163 authority.

164 (e) Proposed screen time and cellphone limits. Proposed screen time restrictions are
165 provided according to grade level as follows:

166 (1) Pre-K through kindergarten screen time: maximum of 4 hours, none of which may be
167 interactive;

168 (2) First through second grade: maximum 5 hours per school year, none of which may be
169 interactive;

170 (3) Grade three through seven passive screen time: maximum of one hour a day and 5
171 hours total in the school year;

172 (4) Grade three interactive screen time: none;

173 (4) Grade four through seven interactive screen time: maximum of 20 minutes a day and
174 a maximum of 3.5 hours total in the school year;

175 (5) Grade 8 through 10 passive screen time: maximum of one hour a day and 25 hours
176 total in the school year;

177 (6) Grade eight interactive screen time: maximum of one hour a day and 5 hours total in
178 the school year.

179 (7) Grade nine through ten interactive screen time: maximum of one hour daily and 10
180 hours total in the school year.

181 (8) Grade 11 through 12 passive screen time: maximum of one hour a day and 35 hours
182 total in the school year;

183 (9) Grade eleven through twelve interactive screen time: maximum of one hour daily and
184 30 hours total in the school year.

185 (10) All grades are to leave cellphones at home or in airplane mode at school in furnished
186 lock-boxes, relying on the school telecommunications system for any necessary calls.

187 (f) Exceptions to screen time limits. With a public hearing, individual or school-wide
188 exceptions may be granted to school screen time limits beginning in the eighth grade for: (1)
189 specialized, optional courses whose subject requires screen time, such as computer
190 programming; and (2) extracurricular activities whose subject requires screen time, such as a
191 computer programming club.

192 A Commonwealth virtual school shall be excepted from screen time limits insofar as
193 excused by its design as described in section 94 of Chapter 71 Title I of the General Laws.
194 Despite this exception, the virtual school must to the maximum extent use its resources to
195 minimize screen time, where possible and when beneficial to the student, and to meet the
196 expectations of subsections (d) and (c), including reporting.

197 Some exceptions to screen time limits do not require a public hearing due to private or
198 emergency nature. If an exception is granted to school screen time limits on the basis of a school
199 or public emergency, the authority shall reconvene as soon as the emergency has passed to
200 establish an orderly, swift process to end the temporary extension and return to the limits
201 previously established without the need for a public hearing. If the reason for an exception no
202 longer exists with respect to a private need, the exception granted is ended.

203 The following exceptions shall be granted with respect to school screen time limits
204 without requiring a public hearing:

205 (1) when a condition of the student's individualized education plan, or when a licensed
206 physician determines necessary for health, an exception to school- or district-wide screen time
207 limits shall be granted;

208 (2) quarantine to prevent transmission of a dangerous disease;

209 (3) personal condition of a student that prevents student school attendance, such as a
210 personal emergency or suspension from school;

211 (4) an unexpected school or public disaster obstructing use of classrooms for in-person
212 learning.

213 (g) Informed consent and opt-outs. Information about school technology shall be made
214 available to school students, guardians, and staff to support the principles in subsection (c) by the
215 authority to the best of its knowledge and ability. The authority shall insure each educator has
216 easy access to a printed list of all software and technologies utilized by the educator, including as
217 specifically connected to each technology product or service, information about the data
218 collected, parties to the data, associated companies, data processing agreements, and any
219 attendant risks provided in the product manual or service contract and any other attendant risks
220 that are known to exist.

221 The authority shall insure each guardian and student is also provided with a copy of the
222 list as relevant to the student. The delivery of this information to students and guardians may be
223 assigned to classroom teachers.

224 Given this information, each guardian and student shall be provided with the opportunity
225 to opt out of the use of any specific product or service.

226 (h) Violations. Each authority shall establish a screen time policy to prevent violations
227 and to deal with students and staff who violate this law that includes consequences to prevent
228 violations. This screen time policy shall include staff professional development on the policy and
229 the hazards of excessive screen time and technology use.

230 Any outside party, including any co-conspirators, attempting to subvert this law in order
231 to increase the use of any technological product shall be subject to civil charges and a penalty.
232 The party or parties shall pay restitution and return profits, including earnings for lobbying.
233 Additionally each party shall be pay a maximum fine of the earnings the party has available in 15
234 days, based on the preceding year's earnings, or serve equivalent time in custody or performing
235 charitable service, or both serve the time and pay the fine.

236 (i) Cellphone limits. The authority shall adopt a policy to limit or prohibit the use by
237 students of cellphones while the students are the school site or while under the supervision and
238 control of an employee or employees of that school or school district. The authority may also
239 limit use by staff.

240 (j) Cellphone exceptions. Notwithstanding subsection (i), no person shall be prohibited
241 from possessing or using a cellphone under any of the following circumstances:

242 (1) In the case of an emergency, or in response to a perceived threat of danger.

243 (2) When a licensed physician and surgeon determines that the possession or use of a
244 cellphone is necessary to the person's health.

245 (3) When the possession or use of a cell phone is required in a student's individualized
246 education program.

247 (k) End technology mandate across curriculum. The Board, commissioner, and
248 department shall revise state education goals, curriculum frameworks, and evaluation
249 requirements to eliminate any educational mandate for the use of digital technology or of
250 information technology except in extracurricular courses in the subject area, and eliminate

251 requirements and evaluations of the use of digital and information technology across curriculum
252 in all subjects excepting courses in the subject area.

253 SECTION 3. Section 1I of chapter 69 of the General Laws, as appearing in the 2021
254 Official Edition, is hereby amended by adding the following paragraph after the first paragraph:-

255 Technology study shall be an optional and not a required public school subject. Unless
256 voluntarily enrolling in a technology course, no public school student or legal guardian shall be
257 treated with prejudice or found wanting in an evaluation due to following a principle of
258 restricting or avoiding student digital technology use. A student or school may safely restrict or
259 avoid digital student technology use and still be provided high marks in evaluation based upon
260 other measures. Within reason, however, such a school shall be expected to insure students
261 understand age-appropriate aspects of digital technology use related to safety, health,
262 responsibility, societal impacts, and privacy.

263 SECTION 3. Section 1I of chapter 69 of the General Laws, as appearing in the 2021
264 Official Edition, is hereby amended striking the phrase “and (d) performance benchmarks and
265 processes for evaluating the effect of district improvement initiatives” and replacing with the
266 following phrase:-

267 and (d) performance benchmarks and processes for evaluating the effect of district
268 improvement initiatives; performance benchmarks and processes shall include not only academic
269 evaluation, but evaluation of measures to improve environmental health, protect privacy, protect
270 cybersecurity, reduce screen time, encourage academic freedom, reduce student and staff stress,
271 and provide adequately for student recess, social interaction, and intermittent breaks

272 SECTION 4. Subsection (a) of Section 94 of Chapter 71 of the General Laws, as
273 appearing in the 2021 Official Edition, is hereby amended by striking out the sentence
274 ““Commonwealth virtual school”, a public school operated by a board of trustees whose teachers
275 primarily teach from a remote location using the internet or other computer-based methods and
276 whose students are not required to be located at the physical premises of the school.” and
277 inserting in place thereof the following sentence:-

278 "Commonwealth virtual school" is a public school operated by a board of trustees whose
279 teachers primarily use distance learning, where the student is not required to be located at the
280 physical premises of the school and instead uses computer-based methods, the internet,
281 telephone, or correspondence by post.

282 SECTION 5. Section 94 of Chapter 71 of the General Laws, as appearing in the 2021
283 Official Edition, is hereby amended by adding the following subsection:-

284 (s) In reviewing proposals, conducting certification and re-certification, the board and
285 department shall require virtual schools to adopt pedagogical strategies and curriculum, when
286 possible and appropriate to student ability, which adopt the following policies: (1) reduce the
287 time students spend before digital screens; (2) with remote learning, provide real-time access to
288 the subject-area teacher during school hours or an option clear to the students for reaching
289 subject-area teachers during school hours for help; (3) provide a weekly schedule for students or
290 guardians to access teachers with a phone call or other real-time in-person method comparable
291 to after-school hours at traditional brick-and-mortar schools; (4) routinely include teacher-led
292 virtual lessons in real time, rather than relying exclusively on EdTech programs; (5) utilize and
293 favor curriculum and lessons the teacher has vetted, modified, and chosen or created in

294 coordination with student needs and current events, rather than industrial, mass-produced,
295 programmed, or otherwise scripted curriculum.

296 SECTION 6. Chapter 15D of Part I Title II of the General Laws is hereby amended by
297 adding the following section: -

298 (a) Definitions. As used in this section, the following words shall have the following
299 meanings:

300 "Confidential data" is data collected on students or staff and which includes:

301 (1) standard identifying information:

302 i. names of staff and students

303 ii. dates of birth

304 iii. addresses

305 iv. grades

306 v. medical information

307 vi. exam results

308 vii. staff development reviews

309 viii. assessments

310 ix. other personal identifying information

311 (2) identifying data such as location-tracking, photographs, and biometric data, which
312 includes unique biological or behavioral identifiers such but not limited to voice audio,
313 fingerprints, gait recognition, and keystroke dynamics.

314 (3) personal writings or other personal work such as art

315 (4) political views

316 (5) socioeconomic data

317 (6) disciplinary data

318 (7) similar data or information on other individuals that are not students or staff, but may
319 be referenced in or extracted from student and staff data.

320 (8) observed and inferred data from the data provided

321 “Interactive screen time” is time viewing and interacting with or altering a technological
322 or digital screen by typing or otherwise moving the body.

323 “Screen time” is time viewing a technological or digital screen which includes but is not
324 limited to a television, a smart board, projector, or computer.

325 “Passive screen time” is time viewing a technological or digital screen in which one only
326 observes and does not interact or alter the screen by typing or otherwise moving the body.

327 (b) Technology screen, safety and privacy limits. The department of early education and
328 care, the commissioner of early education and care, and the board of early education and care
329 shall limit and circumscribe screen time and digital technology in early education and care for
330 the benefit of staff and children, including but not limited to the following conditions:

331 (1) Areas where children spend the majority of time shall not have a television, computer
332 monitor, or other screen routinely playing video, including moving images, or video games, to
333 provide for either passive or interactive screen time.

334 (2) Toys utilized by children in early education and care shall not have the capability for
335 passive or interactive screen time.

336 (3) Toys utilized in early education and care shall not have the ability to record
337 confidential data.

338 (4) Passive and interactive screen time shall be prohibited for children under age 4.

339 (5) Beginning at the age of 4, children may be allowed passive screen time, not
340 interactive screen time however. Passive screen time is not to exceed one of the following
341 choices: (i) one day of each week for 90 minutes; (ii) 20 minutes daily; or (iii) three days for 30
342 minutes.

343 (6) Promote non-digital social interaction, time outdoors, and free play and prevent use of
344 screen time as a reward.

345 (7) Children are not to utilize a cellphone or other screen-based digital device as a toy.

346 (8) Limit and discourage the posting of children's confidential data on social media,
347 unsecured cellphones, or other non-secure online platforms and if posting first acquire
348 permission from the guardian(s).

349 (9) Provide that early education certification and re-certification provides relevant
350 education on cybersecurity, privacy, screen time and technology concerns.

351 (10) Limit and discourage the posting of children’s confidential data on social media,
352 unsecured cellphones, or other non-secure online platforms and if posting first acquire
353 permission from the guardian(s).

354 (11) Provide that early education certification and re-certification provides relevant
355 technology education on cybersecurity, privacy, cultural and electromagnetic hazards.

356 (13) Discourage or limit the use of wireless devices, including video and voice devices
357 intended to monitor children.

358 (14) Regulate screen time to prevent the impact of bright, artificial light from disrupting
359 circadian rhythms and sleep.

360 (15) Test electric and magnetic fields to insure that the play and rest areas have at
361 minimum an extremely low frequency (ELF) and very low frequency (VLF) magnetic field less
362 than 100 microTesla (100 nT), an ELF and VLF electrical field less than 1 volt per meter (V/m),
363 and insure electrical equipment is kept away from play and rest areas – if stricter limits or
364 policies are recommended by the state or federal government, adopt these stricter limits or
365 policies.

366 (16) Avoid the use of wireless devices, such as routers or cellphones, and WiFi near or in
367 play or rest areas, or where children spend the majority of time.

368 (17) Hard wire any necessary digital equipment and verify that wireless transmissions
369 have been and remain halted.

370 (18) Adopt best practices to protect environmental health with regard to electromagnetic
371 and chemical emissions from electric equipment and digital technology.